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VISUAL PATHOLOGY: A CASE STUDY IN LATE  
NINETEENTH CENTURY CLINICAL PHOTOGRAPHY  
IN GLASGOW, SCOTLAND

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BA (Hons.), MSc, BA (Hons.), MPhil.

**VOLUME I**

A THESIS SUBMITTED FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY,  
CENTRE FOR THE HISTORY OF MEDICINE,  
UNIVERSITY OF GLASGOW

2003

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***Declaration***

I declare that this thesis is the result of my own work.

Paula A.V. Summerly

The photograph will represent the form.

Dr William Macewen, Private Journal,  
1882.

The distribution of the affection is better appreciated by a look at the  
accompanying photograph than by words of explanation.

Dr George Henry Edington, Ward Journal,  
Royal Hospital for Sick Children, Glasgow,  
1893.

We have not on the whole exploited the possibilities of  
using images as a principal medium of *discursive* representation, using verbal  
commentary only diacritically, that is to say, to direct attention to, specify,  
and emphasize meaning conveyable by visual means alone.

Hayden White, 'Historiography and  
Historiophoty', *American Historical Review*,  
1988.

## **Abstract**

This thesis analyses the role of clinical photography in late nineteenth-century Glasgow. The photographs for this study occur in five interrelated contexts. Firstly I examine the clinical uses of popularised techniques such as the stereograph, *carte-de-visite* and the cabinet card.

Secondly, I shall discuss a selection of clinical photographs that featured in the context of the *Glasgow Medical Journal* from the late 1870s onwards. The first published images were the work of professional studio photographers. Over the following two decades, however, one sees an increase in the number of photographs taken by medical men. These published photographs circulated in a number of contexts including M.D. theses, medical society lectures and individuals' collections.

Thirdly, clinical photographs began to feature in the context of the surgical ward journals and pathology reports of the Glasgow Western Infirmary and the Royal Hospital for Sick Children, Glasgow from the mid-1880s onwards. These photographs were often the work of House Surgeons and Resident Assistants. During the early 1880s while surgeon to the Glasgow Royal Infirmary, Sir William Macewen (1848-1924) began to take clinical photographs for inclusion in his Private Journals, our fourth context. Macewen began to mount duplicate prints of some of these cases on to boards, and write brief case notes on the verso. This formed the basis of a collection of clinical photographs, which he used in surgical demonstration classes at the Glasgow Royal Infirmary Medical School.

The fifth, and final, part of this study examines Macewen's collection of clinical photographs, which expanded over the next thirty years or so, to contain over eight hundred items. In 1892 Macewen moved from the Glasgow Royal Infirmary to become Regius Professor of Surgery at the University of Glasgow and Visiting Surgeon to the Glasgow Western Infirmary. Macewen used his collection of clinical photographs in conjunction with plaster casts, specimens and lanternslides in surgical demonstration classes held at the University of Glasgow.

Many visual sources in the history of medicine are fragmentary by their very nature, disconnected from their origins and contexts of use. In this thesis I take an interdisciplinary and contextualised approach to the study of late nineteenth-century clinical photography. The aim is to understand and interpret photographs within their local contexts of production, circulation and use. Photographs can have intimate connections with other forms of images, texts and artefacts. These inter-relationships have important implications for understanding the role of clinical photography within late nineteenth-century Glasgow medicine. Moreover, I shall explore alternative ways of illustrating the results of this research through means of visual expression.

## ***Acknowledgements***

Firstly, I must thank the Wellcome Trust for generously supporting my MPhil and PhD studentships at the Centre for the History of Medicine, University of Glasgow. Special thanks to those who have been there from the outset: Alistair Tough of the Greater Glasgow Health Board Archive; George Gardner of the Glasgow University Archives and Business Records Centre.

I would like to acknowledge the support and my gratitude to the following Archivists and Librarians: James Beaton, Carol Parry and Valerie McClure of the Royal College of Physicians and Surgeons, Glasgow; Alma Topen at the Yorkhill Hospital; Dr Mike Barfoot, of Lothian Health Board; Marion Rea of St. Bartholomew's Hospital; Nicholas Baldwin of Great Ormond Street Hospital; Helen Wakely at the Wellcome Library, London; Barry Davis and Jane Hughes of the Royal College of Surgeons, England and Sarah Hepworth, Archivist at the Glasgow School of Art. Thanks to Willem Mulder, Curator of the University Museum, Utrecht; Dr Torquil Macleod, Pathologist at the Stirling Royal Infirmary; Mr Mike Dixon, Consultant Surgeon at the Edinburgh Royal Infirmary; Professor Larry Schaaf and Kelley Wilder of The Correspondence of William Henry Fox Talbot Project at the University of Glasgow, also Dr Stuart W. McDonald and Dr John Shaw-Dunn at the Department of Anatomy and Trevor Graham of the Photography Unit at the University of Glasgow. I am also grateful to Allan Macdonald, Sir William Macewen's great, great grandson; Dr W.L. Yule, Douglas Annan and Professor Malcolm B. Macmillan from Deakin University, Australia.

Finally, I would like to thank my true friends and colleagues at the Centre for the History of Medicine, at the University of Glasgow; in particular, Ian Carthy, David Sutton, Anne Cameron, Dr Lindsay Reid and Dr Andrew J. Hull. My greatest thanks, gratitude, and admiration are reserved however, for my supervisor, Dr Malcolm Nicolson.

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## Chapter One: Introduction

### *The Historiographic Context*

Increasingly, historians of medicine are being encouraged to use images as a central component in their work.<sup>1</sup> These ideas have been promoted and disseminated through publications, lectures and exhibitions.<sup>2</sup> Fortunately, locating visual sources for research purposes is becoming simpler with more detailed and sophisticated computerized catalogues and dedicated web sites.<sup>3</sup> In order to undertake a comprehensive literature review, it is necessary to take an interdisciplinary approach. Therefore, I have divided the literature into the following broadly defined categories:

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<sup>1</sup>For example see Reiser, S.J. (1978) *Medicine and the Reign of Technology* (London: Cambridge University Press) see especially pages 56-58; Fox, D.M. & Lawrence, C. (1988) *Photographing Medicine: Images and Power in Britain and America Since 1840* (New York: Greenwood Press); Porter, R. (1988) 'Seeing the Past', *Past and Present*, 118: 186-205; Gilman, S. L. (1995) *Health and Illness: Images of Difference* (London: Reaktion Books), see especially Chapter 1, 'How and Why do Historians of Medicine Use or Ignore Images in Writing their Histories', 1-9; Stepan, N.-L. (1994) 'Portraits of a Possible Nation: Photographing Medicine in Brazil', *Bulletin of the History of Medicine*, 68: 136-149; Lewis-Green, L. (1996) *Framing The Victorians: Photography and the Culture of Realism* (Ithaca: Cornell University Press); 'Illustration and Photography in Medicine', in J. Walton & P.B. Beeson (eds.) (1986) *The Oxford Companion to Medicine, Volume 1, A-M* (Oxford: Oxford University Press), 574-578.

<sup>2</sup>Some of the most recent exhibitions to refer to medical-clinical photography, including: 'Spectacular Bodies: The Art and Science of the Human Body from Leonardo to Now', held at the Hayward Gallery, London, 2000-2001. See the Exhibition Catalogue by Kemp, M. & Wallace, M. (2000) *Spectacular Bodies : The Art and Science of the Human Body from Leonardo to Now* (London: Hayward Gallery). See also 'The Beautiful and the Damned', Exhibition at the National Portrait Gallery, London, and the Exhibition Catalogue by Hamilton, P. & Hargreaves, R. (2001) *The Beautiful and the Damned: The Creation of Identity in Nineteenth Century Photography* (London: Lund Humphries); *The Impossible Science of Being: Dialogues between Anthropology and Photography* (London: The Photographer's Gallery, 1995); 'A Vision Exchanged' an Exhibition at the Victoria and Albert Museum and at the National Museum of Photography, Film and Television, Bradford, and the Exhibition Catalogue by C. Bloore & G. Sieberling (eds.) (1985) *A Vision Exchanged* (London: Victoria & Albert Museum). See also the 'Picturing History' summer lectures run by History Today and Reaktion Books (June-July 2001). The Wellcome Trust has held numerous exhibitions with accompanying catalogues relating to medicine and art and science, see for example: *Materia Medica: A New Cabinet of Medicine and Art* at the Wellcome Institute for the History of Medicine, Two Ten Gallery, November 1995 by Arnold, K. & Kemp, M. (London: Wellcome Trust, 1995).

<sup>3</sup>See for example the Wellcome Trust's catalogues: Iconographic Collections and Source Leaflets relating to clinical and medical photography <http://library.wellcome.ac.uk/> (11.2.02); and medical photography, <http://medphoto.wellcome.ac.uk> (1.2.03); <http://www.clinicalnotes.ac.uk/> (8.10.02); [http://jetsum.uwcm.ac.uk:11380/imi\\_archives](http://jetsum.uwcm.ac.uk:11380/imi_archives) (10.10.02).

the history of medicine; the history of photography and medical photography; and theoretical debates from the history of art and visual culture.<sup>4</sup>

Historians of medicine have been preoccupied with discussing the role of images as sources, focusing on problems of interpretation, and have, for instance, been keen to adopt theories derived from the history of art and visual culture. Discussions by historians of art and visual culture are often concerned with the 'status' of the photograph, and whether it can be understood as an 'objective document' or simply as an aesthetic object. Conversely, historians of photography and medical photography debate technical issues, as well as locating and describing the 'first' clinical photographs. Thus, many previous studies of clinical photography reflect one or more of these disciplinary concerns.

There is also a problem with the nomenclature surrounding clinical photography. In this thesis I shall use the term to refer specifically to photographs taken of patients, their body parts and specimens. 'Medical' photography is a broad term that encompasses clinical photography, as well as photographs of ward scenes, portraits of doctors, etc. However, many writers use the term 'medical' when they are in fact referring to clinical photographs. When discussing the works of others I shall retain the authors' original terminology.

### ***Historians of Medicine***

As a subject, 'medical' photography was first discussed during the 1930s and 1940s, which decades saw the publication of several influential works.<sup>5</sup> Writing in 1942,

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<sup>4</sup>For a general introduction see Mirzoeff, N. (1999) *An Introduction to Visual Culture* (London: Routledge).

George Rosen summarized what was known of the history of early medical photography in Europe.<sup>6</sup> After surveying a series of medical textbooks he concluded that ‘there are no known photographs of morbid phenomena, or of patients exhibiting characteristic clinical findings, which were taken during the early period of photography.’<sup>7</sup> Rosen suggested that in order to take these kinds of photographs both ‘anastigmatic lenses, which were not developed until 1889-90 and highly sensitive films’ were required.<sup>8</sup> He argued therefore, that ‘the only medical photographs, in the strictest sense of the word, produced during the early period of photography were photomicrographs’.<sup>9</sup> However, Rosen goes on to contradict his opening statement about the lack of known photographs of morbid phenomena or patients exhibiting characteristic clinical findings when referring to Erich Stenger’s work on Behrendt:<sup>10</sup>

It was not long, however, before photography began to be applied to other medical subjects. Stenger states that in 1852 Dr. Behrendt, of Berlin, photographed all orthopaedic cases before and after treatment, so as to have “photographs of documentary value, true to life,” in place of drawings, which had previously been the only available means for the recording of such facts.<sup>11</sup>

Rosen was one of the few historians of medicine, however, to engage with the technical issues relating to the study of medical photography.

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<sup>5</sup>Rosen, G. (1942) ‘Early Medical Photography’, *Ciba Symposia*, 4: 1344-1355. See also Gurtner, H. (1935) ‘Medizinische Photographien in der Frühzeit der Photographie’, *Ciba Zeitschrift*, 2: 740.

<sup>6</sup>Rosen, G. (1942) ‘Early Medical Photography’, 1344.

<sup>7</sup>Ibid.

<sup>8</sup>Anastigmatic lenses are those in which every point on the scene is referred accurately to a corresponding point on the plate. Rosen was perhaps describing the introduction of dry-plate photography.

<sup>9</sup>Ibid.

<sup>10</sup>The spelling of ‘Behrendt’s’ name varies. However, it may be assumed that Stenger and Rosen are referring to H.W. Behrend (1809-1873) an orthopaedic surgeon working in Berlin.

<sup>11</sup>Ibid. Rosen is referring to Stenger’s work first published in 1938 entitled *Die Photographie in Kultur und Technik*, which was translated into English and reprinted in the 1950s, see Stenger, E. (1958) *The March of Photography* (London: Focal Press).

Daniel Fox and James S. Terry also acknowledged the role of technical advances in medical photography, arguing that the invention of dry-plate technology during the 1880s 'liberated' some aspects of photography.<sup>12</sup> This lead, they argued, to an 'aesthetic free period' when photographers were faced with 'a lack of established canons for choosing among inherited or developing conventions'.<sup>13</sup> Fox and Terry were amongst the first to take a systematic approach to categorizing several thousand late nineteenth and early twentieth-century American medical photographs. They devised and adopted 'Iconographic analysis' derived from art, photography and social history. In order to evaluate medical photographs it is necessary, they argue, to study an image and its history through four analytic components. The first treats the photograph temporarily as a 'self-sufficient "text" in visual terms'.<sup>14</sup> The second stage involves examining the 'treatment of subject and detail', and the third, by 'questioning the photographer's vantage point'. The fourth component describes technical information such as lighting, quality of print, etc. By using this form of analysis they could examine the medical, photographic and social history of a given photograph. Fox and Terry stated that photographs are 'not a frozen reality ... they are consciously or unconsciously selected by some combination of subject, photographer and collector'.<sup>15</sup>

For Renata Taureck, technological advancement during the early 1880s furthered objectivity in photography, when images of the sick could be duplicated without

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<sup>12</sup>Fox, D.M. & Terry, J. (1978) 'Photography and the Self Image of American Physicians, 1880-1920', *Bulletin of the History of Medicine*, 52: 435-457.

<sup>13</sup>Ibid. 443. See also Terry, J., Herskovitz, A., Fox, D.M. (1984) 'Photographs Tell More than Meets the Eye', *Journal of Biological and Photographic Association*, 52: 111-115; see also Terry, J. (1983) 'Dissecting Room Portraits: Decoding an Underground Genre', *History of Photography*, 7: 96-98.

<sup>14</sup>Fox, D.M. & Terry, J. (1978) 'Photography and the Self Image', 445.

<sup>15</sup>Ibid. 443.

distracting details.<sup>16</sup> Taureck's thesis, published in 1980, documented changes in photographic representation in Europe during the mid nineteenth to the twentieth century.<sup>17</sup> She describes the introduction of photography into a range of medical specialties such as dermatology and orthopaedics. Eighty-six images, the majority of them photographs, were presented as a seamless chronological narrative beginning with Donne's photomicrographs from 1845 and ending with a photograph of a child suffering from rickets taken in 1902.

Many modern studies in the history of medical-clinical photography juxtapose contemporary images from a variety of contexts and medical specialties for the sake of presenting a seamless chronological narrative. Taking this approach, however, isolates the images from their original contexts of production, circulation and use. Perhaps it would be interesting to see whether the historical development of photography within each medical specialty, for example dermatology, may have its own influences, and 'prehistory', contexts of use and so forth.

Daniel Fox, together with Christopher Lawrence, elaborated on some of the issues raised from Fox's earlier study with James Terry. Fox and Lawrence's *Photographing Medicine* published in 1988 remains one of the most informative and highly influential works. They argue that photographs are a form of 'constructed reality', and that changes in representation correspond with shifts of power within orthodox medicine. Their study considers photographs as documents, and attempts to understand the meaning contemporaries would have given to them and the uses to which they were

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<sup>16</sup>Taureck, R. (1980) *Die Bedeutung der Photographie für die Medizinische Abbildung Im 19. Jahrh* (Feuchtwangen : Alleinvertrieb, C.-E. Kohlhauser).

<sup>17</sup>A similar format was repeated some years later. See, for example, Sicard, M., Pujade, R., Wallach, D., (1995) *À Corps et à Raison: Photographies Médicales 1840-1920* (Paris: Marval).

put. This they achieved by ‘reading’ the photographs in conjunction with ‘other primary sources and the best historical accounts of the recent past’.<sup>18</sup> Fox and Lawrence selected photographs from British and American hospital and public archives; and those that had contextual information, thus allowing the photographs to be interpreted in a coherent theory. Their aim, therefore, is not to ‘tell a familiar story using a different sort of document ... but to arrive at a new understanding of the past ... we can learn about people’s ways of seeing how images were created and used.’<sup>19</sup>

According to Fox and Lawrence, historians have had an:

[A]mbivalent relationship with photographs ... [A] work which uses photographs is often dismissed as a “coffee table book,” an entertainment for people who like old pictures. Historians, however, have frequently used photographs either to supplement accounts based on written sources or as “illustrations” to “prove” a factual point made from textual analysis. Photographs, paradoxically, are considered too obvious to merit the historian’s close attention yet also are used as windows through which the past can be viewed with great accuracy.<sup>20</sup>

So how can historians avoid such extremes? Fox and Lawrence suggest that a balance can be achieved by analyzing photographs in relation to contemporary sources.

In order to understand the ‘meaning’ of photographs, historians have looked to the history of art and the sociology of knowledge for theoretical models. In her critical account of Fox and Lawrence’s work, Ludmilla Jordanova raises the following interrelated issues about the historical interpretation of medical photographs, namely: the idea that images contain messages; the role of photographs as historical evidence; patronage; practice of photography; and imagery; and power.<sup>21</sup> She criticizes their use

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<sup>18</sup>Fox & Lawrence (1988), 5.

<sup>19</sup>Ibid. 6.

<sup>20</sup>Ibid.

<sup>21</sup>Jordanova, L. (1990) ‘Medicine and Visual Culture’, *Social History of Medicine*, 3: 89-99. See also Jordanova, L. (2000) *History in Practice* (London: Arnold), especially pages 86-89 on ‘interdisciplinary history’.

of the term photographic ‘message’, arguing that ‘viewers cannot necessarily perceive messages as the makers intended’.<sup>22</sup> Jordanova questioned whether images had a right or wrong meaning, and if it is possible to read an image in the way the photographer “really” meant.<sup>23</sup> Moreover, she argues that Fox and Lawrence ‘neglect to tell us who creates the conventions and how they are disseminated’. She claims that it is ‘artificial to separate paintings from photographs’, as they are not separate in the mind of the practitioner.<sup>24</sup> This may be true to some extent; however, it neglects the photographer’s and artist’s motives for choosing to photograph, draw or paint a particular subject.

Janet Golden and Charles Rosenberg also pursued the visual narrative theme in their study of medical photographs.<sup>25</sup> They sampled photographs, which were then arranged chronologically and thematically. Their book is divided into chapters on topics such as medical education and training. However, they neglected to discuss clinical photographs, ‘preferring to deal with the social aspects of medicine, institutional practice and personnel’.<sup>26</sup>

In 1993 Andreas-Holger Maehle was one of the few historians of medicine to employ quantitative methods in the study of medical photography in order to ‘gain information on focal points of medical interest’.<sup>27</sup> Maehle applied this method to his

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<sup>22</sup>Jordanova (1990), 94.

<sup>23</sup>Ibid.

<sup>24</sup>Ibid. See also, Currie, G. (1991) ‘Photography, Painting and Perception’, *The Journal of Aesthetics and Art Criticism*, 49: 23-29. Currie states that ‘we see photographs and paintings in just the (ordinary) way we see other things.’

<sup>25</sup>Golden, J. & Rosenberg, C.E. (1991) *Pictures of Health: A Photographic History of Health Care in Philadelphia 1860-1945* (Philadelphia: University of Pennsylvania Press).

<sup>26</sup>Ibid. 5.

<sup>27</sup>Maehle, A.-H. (1993) ‘The Search for Objective Communication: Medical Photography in the Nineteenth Century’, in R.G. Mazzolini (ed.) (1993) *Non-Verbal Communication in Science prior to 1900* (Firenze: Leo S. Olschi), 563-586.

analysis of nineteenth-century and contemporary medical textbooks and nineteenth-century collections of clinical photographs. He argued that in taking this approach one could learn about which diseases were regarded as scientifically or practically important and one could gain an understanding of the overall 'expression' of each collection of photographs. By examining collections of clinical photographs accompanied by case notes, one could draw conclusions regarding social history and ethics, relating the need for anonymisation to particular diagnoses. Furthermore, one could regard close-up and tightly framed shots as evidence of a 'more somatic and localistic concept of disease'.<sup>28</sup>

The reality of employing quantitative analysis is perhaps more complex than Maehle suggests. Firstly, locating a comprehensive or 'complete' collection of nineteenth-century clinical photographs in order to carry out this kind of analysis is difficult. Surviving collections tend to be fragmented. The 'expression' of a collection may reflect not only the more 'photogenic' diseases, or extreme cases, but

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<sup>28</sup>Maehle, A.-H. (1986) 'Wie die Photographie zu einer Methode der Medizin Wurde', *Fortschritte der Medizin*, 104: 63-65. Maehle cites Robert Koch's work on bacteriology in 1877, see page 63. See also Maehle, (1993) 583. Here he suggests that 'objectivity' figured particularly in early photomicrography. However, this objectivity 'would have a disciplining effect on microscopic research' as it required the making of excellent preparations and challenged conventional ways of looking at them. It was frequently maintained that the so-called chemical eye of the photographic plate was able to see more accurately and to recognize more details than the human eye. Jennifer Tucker suggested that Robert Koch's work on bacteriology was instrumental in furthering the acceptance of photomicrography. See Tucker, J. (1997) 'Photography as Witness, Detective and Impostor: Visual Representation in Victorian Science', in B. Lightman (ed.) (1997) *Victorian Science in Context* (London: Chicago University Press) 378-408; see also Tucker, J. (1996) 'Science Illustrated: Photographic Evidence and Social Practice in England, 1870-1920', (PhD Thesis, John Hopkins University). It was not until 1880 that Koch publicized his findings in the English photographic press: 'Look into the microscope, and you cannot see these bacteria in their bed tissue; place them before a camera, and you secure a photograph of the tiny organisms forthwith.' He continued, 'the microscope, when appealed to, fails to bear out all Mr. Lister says, photography's evidence is likely to afford convincing proof of Mr. Lister's theory and practice.' See the Editorial (1880) 'With Professor Lister-Photographs of Bacteria', *The Photographic News*, 24: 409-410. Koch suggested that photographs of bacteria could 'establish the truth of the most useful clinical question of the day, a matter which has already revolutionized surgery and appears calculated to bring with it advantages and blessing as those which followed the introduction of chloroform and anaesthetic treatment'.

also the creator's teaching interests. Both may differ from the originator's 'real or current' research interests and/or day-to-day practice(s).

There is a substantial body of work on the history of clinical psychiatric photography. Writing in 1976, Sander L. Gilman stated that it was in psychiatry that the first systematic practice of clinical photography was undertaken.<sup>29</sup> In his book, entitled *Seeing the Insane*, 1982 Gilman argues that 'no distinction can be made between somatic and emotional illness.'<sup>30</sup> However, I want to argue that the history of clinical psychiatric photography has an ancestry in physiognomy and phrenology, and is, therefore, distinct from clinical photography *per se*. Clinical psychiatric photography requires the viewer to understand the nature of the sitter's illness by an analysis of facial expression and demeanor, and the diagnosis could be confirmed through reading the accompanying legend.<sup>31</sup> These images which are found in many asylum case books share, moreover, many conventions used in criminal photography, such as the recording of the front and side profile in one by using a mirror. In this thesis the term 'clinical photography' and is used to refer explicitly to refer to visual representation of somatic disease.

Mike Barfoot's and Alison Morrison-Low's study of early clinical psychiatric photography by W.C. McIntosh and A.J. Macfarlan advocates an altogether different approach to that offered by Gilman.<sup>32</sup> Barfoot and Morrison-Low suggest that much

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<sup>29</sup>Gilman, S.L. (1976) *The Face of Madness: Hugh W. Diamond and the Origin of Psychiatric Photography* (New Jersey: The Citadel Press).

<sup>30</sup>Gilman, S.L. (1982) *Seeing the Insane: A Cultural History of Madness and Art in the Western World* (New York: J. Wiley), 13. See also his venture into surgery, Gilman, S.L. (1999) *Making the Body Beautiful: A Cultural History of Aesthetic Surgery* (Chichester: Princeton University Press).

<sup>31</sup>One of the few individuals to combine ideas relating to physiognomy and disease was Francis Galton. See for example see work on the physiognomy of phthisis using his method of photographic composite portraiture in Galton, F. (1878) *Composite Portraits* (London: Harrison & Sons).

<sup>32</sup>Barfoot, M. & Morrison-Low, A.D. (1999) 'W.C. McIntosh & A.J. Macfarlan: Early Clinical

of the existing literature treats the subject of clinical photography 'much too remotely, at the level of the cultural or intellectual tradition rather than by considering the local historical contexts in which clinical photographs were produced, circulated and used'.<sup>33</sup> Their case study should be applauded for taking a local contextual approach to the study of nineteenth-century clinical psychiatric photography. In particular they relate photographs of cases to other associated media including drawings and plaster casts.<sup>34</sup>

### ***Historians of Photography and Medical Photography***

Historians of photography rarely discuss the development of medical-clinical photography. Those that do, appear to be preoccupied with technical issues, and/or identifying and describing the 'first' clinical photograph(s). Writing in 1945, Josef Maria Eder published an account of the history of photography in Europe.<sup>35</sup> In the chapter on scientific photography, Eder describes what he believes to be one of the first applications of photography to medicine. This was in the field of photomicrography. He outlined the pioneering work by J.B. Reade, A. Donne and J. Berres during the mid-nineteenth century.

In general histories of photography, little reference is made to medical-clinical photography. Those who do, on the whole, tend to cite Dr Hugh Welch Diamond's (1809-1886) psychiatric portraits or G.B. Duchenne's (1806-1875) work on

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Photography in Scotland', *History of Photography*, 23:199-210.

<sup>33</sup>Ibid. 199.

<sup>34</sup>However, there is no explanation of the stylistic differences between some of the photographs used in their argument. For example see Fig. 1, group portrait, page 201 and the more 'clinical looking image', Fig. 12, 204.

<sup>35</sup>Eder, J.M. (1945) *History of Photography* (New York: Columbia University Press).

physiognomy, such 'signature images' are used to represent a discipline or genre.<sup>36</sup> It was not until 1961 that the first survey dedicated to the history of medical photography was written by Alison Gernsheim, and published in two parts. Part one details the history of medical illustration, photomicrography and photography of the 'exterior of the body'.<sup>37</sup> This last section is dedicated to clinical photography, even though the author does not use this particular terminology. Gernsheim cites Rosen's comments from 1943, regarding the lack of images of clinical and morbid phenomena from the early period of photography. In order to refute Rosen's claim she lists all the relevant clinical photographs she is aware of, including many patients treated by the surgeons 'Behrend', Sedillot and Billroth during the 1850s and 1860s.<sup>38</sup>

Gernsheim's articles were published in a journal dedicated to medical and biological illustration. She presents the history of medical photography as a seamless chronological narrative and her approach influenced the format of many subsequent

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<sup>36</sup>This term was used by Elizabeth Edwards in her research on photography and anthropology, see Edwards, E. (2001) *Raw Histories: Photographs, Anthropology and Museums* (Oxford: Berg), see for example, page 131. For general textbooks on the history of photography, see, for example, Frizot, M. (1998) *The New History of Photography* (Köln: Könemann) see especially Chapter 15 'Body of Evidence: The Ethnophotography of Difference', pages 259-271. See also Bernard, B. (1980) *The Sunday Times Book of Photodiscovery: A Century of Extraordinary Images 1840-1890* (London: Thames & Hudson); Buckland, G. (1980) *First Photographs: People, Places, and Phenomena as Captured for the First Time by the Camera* (London: Robert Hale); J.C. Lemagny, (ed.) (1987) *A History of Photography: Social and Cultural Perspectives* (Cambridge: Cambridge University Press); Braive, M.F. (1966) *The Photograph: A Social History* (New York: McGraw Hill). See also Gernsheim, H. & Gernsheim, A. (1955) *A Concise History of Photography From The Camera Obscura to the Beginning of the Modern Era* (London: Thames & Hudson); Newhall, B. (1964) *The History of Photography from 1839 to the Present Day* (New York: The Museum of Modern Art); Haworth-Booth, M. (1984) *The Golden Age of British Photography 1839-1900* (New York: Aperture & Victoria & Albert Museum); Szarkowski, J. (1966) *The Photographer's Eye* (Boston: New York Graphic Society for the Museum of Modern Art). For works on Diamond see Burrows, A. & Schumacher, I. (1990) *Portraits of the Insane: The Case of Dr Diamond* (London: Quartet Books); and for Duchenne see, Duchenne, G.B.A. (1855) *De L'Électrisation Localisée: et de son Application à la Pathologie et à la Thérapeutique par le Docteur Duchenne de Boulogne* (Paris: Bailliére); Duchenne, G.B.A. (1862) *Mécanisme de la Physionomie Humaine ou Analyse Electro-Physiologique de L'Expression des Passions* (Paris: Renouard).

<sup>37</sup>Gernsheim, A. (1961) 'Medical Photography in the Nineteenth Century, Part 1', *Medical and Biological Illustration*, 2: 85-92. Gernsheim, A. (1961) 'Medical Photography in the Nineteenth

studies of medical photography. Creating such a linear account involves leaping from one medical speciality to another, ignoring the possibility that each discipline may have its particular ancestry, influences and development.

Teachers, clinicians and researchers use photographs of patients' bodies and their abstracted parts to visually enrich medical teaching. Gernsheim, too, hints at the context in which some of the images were created and used; for example, reference collections were used for comparative purposes.<sup>39</sup> She states that 'I am unable to say when photography was first officially recognized by an English Hospital. St Bartholomew's Hospital at any rate had by 1893 a large number of photographs.'<sup>40</sup> Similarly, in 1982 A.R. Williams revisited this theme in his description of a collection of nineteenth-century clinical photographs taken of surgical patients at Charing Cross Hospital.<sup>41</sup>

Andrew Cuthbertson suggested that G.B.A. Duchenne de Boulogne was the first to use clinical photographs in his book on neurological disorders published in 1863.<sup>42</sup> Similarly, G.M. Wilson's article published in 1973 describes a calotype taken by the eminent Scottish photographers, D.O. Hill and R. Adamson, sometime between 1843 and 1847.<sup>43</sup> The image is taken directly face on to the sitter, and cropped above her waist, perhaps in order to draw the attention of the viewer to the upper half of the body. Wilson suggests that:

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Century, Part 2', *Medical and Biological Illustration*, 2: 147-156.

<sup>38</sup>As already noted Rosen contradicts himself in his 1943 article, by citing the work of Behrend.

<sup>39</sup>Gernsheim is referring to the existence of a collection of clinical photographs, listed in St. Bartholomew's Hospital Museum guide from 1893.

<sup>40</sup>Gernsheim, A. (1961) 'Medical Photography, Part 2', 149.

<sup>41</sup>Williams, A.R. (1983) 'Victorian Clinical Photography', *Journal of Audiovisual Media in Medicine*, 3: 100-103.

<sup>42</sup>Cuthbertson, A. (1978) 'The First Published Clinical Photographs', *The Practitioner*, 221: 276-278.

<sup>43</sup>Wilson, G.M. (1973) 'Early Photography, Goitre and James Inglis', *British Medical Journal*, II: 104-

[T]he clothing around her neck has been drawn back to show the goitre. This photograph contrasts strongly with their other works, in which artistic arrangement of the sitter is a main consideration. This must be one of the earliest clinical photographs, if not indeed the first.<sup>44</sup>

Wilson attempts to contextualise the image by suggesting tentative links between Hill and Adamson and Dr James Inglis, who had an interest in goitre.<sup>45</sup> However, if one looks at this photograph within the broader context of Hill and Adamson's work it becomes apparent that the sitter's dress and bonnet are strikingly similar to those worn by fisherwomen in Hill and Adamson 'Newhaven' photographs, taken during the early-to-mid 1840s.<sup>46</sup>

Kathy McFall also described this image as the 'first clinical photograph', in an article celebrating one hundred and fifty years of medical illustration.<sup>47</sup> What all these researchers fail to do is explain why it is seemingly important to identify and describe the first clinical-medical photograph. The photographs described by Wilson and McFall are 'outliers', i.e. individual images, many of which do not have a clear provenance. Their historical value is somewhat limited: other than being the 'first' or 'earliest' they do not enhance our understanding of the role of photography within nineteenth-century medical practice.<sup>48</sup> In her M.Sc. Thesis, McFall also referred to Hill and Adamson's photograph in her account of the history of medical photography

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<sup>44</sup>Ibid. 104.

<sup>45</sup>Wilson provides brief biographical details of Dr James Inglis. He graduated from Edinburgh University with an M.D. in 1834.

<sup>46</sup>For example see C. Ford (ed.) (1974) *An Early Victorian Album: The Photographic Masterpieces (1843-1847) of David Octavius Hill and Robert Adamson* (London: Jonathon Cape), 168-169.

<sup>47</sup>McFall, K. (1997) 'A Notable Anniversary in the History of Medical Illustration', *Journal of Audiovisual Media in Medicine*, 1: 5-10.

<sup>48</sup>See Snyder, J. & Walsh Allen, J. (1982) 'Photography, Vision and Representation', in T.F. Barrow (ed.) (1982) *Reading into Photography: Selected Essays, 1959-1980* (Albuquerque: University of New Mexico Press), 61-91.

in Great Britain and the United States of America.<sup>49</sup> Like Gernsheim, McFall presents a seamless chronological narrative, moving from one medical specialty to another. However, McFall is perhaps one of the first to differentiate between medical and clinical photography. As noted above, the former is a broad term, which encompasses portraits of doctors and ward scenes for example. She suggests that 'a clinical photograph is one which depicts a patient and his or her disease, with the appearance of the disease being the principal subject of the photograph.'<sup>50</sup> It is possible, however, to make this definition more precise. I shall argue that clinical photographs are images of somatic diseases and are distinct from images of clinical psychiatric diseases. Although the apparent visual signs of disease were often the main reason that led to the photograph being taken, in the final image, the pathology may only appear as an incidental element, disguised in conventions of portraiture.

A series of modern periodicals dedicated to medical photography began to appear from the 1950s onwards including the *Journal of the Biological Photographic Association*, the *Journal of Biological Photography*, and the *Journal of Audiovisual Media in Medicine*. In these periodicals there is an emphasis on imparting knowledge of a technical kind, periodically interspersed with articles relating to the history of medical-clinical photography.<sup>51</sup>

The analysis of medical and clinical photography has thrown up dedicated

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<sup>49</sup>McFall, K. (1995) 'A Critical Account of the History of Medical Illustration', (M.Sc. Thesis, College of Medicine, University of Wales). See also Smithson, D. (2002) 'A Discourse on the History of Medical Photography in the United Kingdom from 1900-1950' (M.Sc. Thesis, College of Medicine, University of Wales). Available on-line at [http://jetsum.uwcm.ac.uk:11380/history/a\\_discourse](http://jetsum.uwcm.ac.uk:11380/history/a_discourse) (19.6.02).

<sup>50</sup>McFall, K. (1995) *A Critical Account of the History of Medical Illustration*, 8.

<sup>51</sup>Specialist medical periodicals also venture into the history of photography, see for example Wallace, A.F. (1985) 'The Early History of Clinical Photography for Burns, Plastic and Reconstructive Surgery', *British Journal of Plastic Surgery*, 38: 451-456.

historians of medical photography, resulting in attempts to go beyond identifying the first medical and clinical photographs, creating a wider debate on how they can be interpreted and used within historical research. One of the most prolific writers on this subject is Dr Stanley B. Burns.<sup>52</sup> In 1983 Burns reviewed the current forms of photographic analysis.<sup>53</sup> He describes William Crawford's methodology of 'Photographic Syntax'. Crawford argued that there are individual technological syntaxes, for the camera (lens, shutter speed), film (black and white, lighting) and the print (methods and materials).<sup>54</sup>

According to Crawford:

[T]here is a syntactical structure for the "language" of photography and that it comes, not from the photographer, but from the chemical, optical, and mechanical relationships that make photography possible. My argument is that the photographer can only do what the technology at the time permits him to do.<sup>55</sup>

Burns's 'Phototaxic analysis' combines elements derived from art, photography, social and cultural history.<sup>56</sup> His form of analysis describes the parts that go into the arrangement of a photograph; not only its technologic production, but also its present use.<sup>57</sup> The technological aspects are discussed, along with photographic processes, equipment, the photographer, the subject and the preserver of the image, resulting in

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<sup>52</sup>Dr Stanley B. Burns is an ophthalmologist, historian and curator of the 'Burns Archive', one of the world's largest collections of medical photographs. See <http://www.burnsarchive.com> (30.04.01).

<sup>53</sup>Burns, S. B. (1981) 'Early Medical Photography in America (1839-1883)', *New York State Medical Journal*, July, 1226-1264. See also Burns, S. B. (1983) *Early Medical Photography in America (1839-1883)* (New York: Burns Archive); see also the following articles in the *New York State Medical Journal* for 1985: 'Physician Portraiture', *Medical Heritage*, 1: 73-74; 'Physician as Diagnostician', *Medical Heritage*, 1: 150; 'Physician as Scientist', *Medical Heritage*, 1: 234; 'Clinical Reference Photography', *Medical Heritage*, 1: 313; and 'Pre-Antiseptic Surgery', *Medical Heritage*, 1: 465-466.

<sup>54</sup>Crawford, W. (1979) *The Keepers of Light: A History and Working Guide to Early Photographic Processes* (New York: Morgan & Morgan).

<sup>55</sup>Ibid. 6. However, Crawford overlooks the role of the individual photographer's knowledge and experience.

<sup>56</sup>He argues that Crawford's 'Photographic Syntax' and Fox and Terry's 'Iconographic Analysis', are the most useful. See Burns (1981) 'Early Medical Photography in America', 1257.

<sup>57</sup>Ibid. 1258.

an understanding of the ‘intended usage of the image, and a study of its past and present actual use’.<sup>58</sup> In 1988 Burns, together with Joel-Peter Witkin, an artist and photographer, published *A Morning’s Work*, a selection of nineteenth-century medical photographs from the Burns Archive.<sup>59</sup>

In her review of *A Morning’s Work*, Rachelle Dermer noted that the book contained three categories of photographs: the practical; the justified; and the specular.<sup>60</sup> Practical photographs were those ‘created during the practice of medicine and used in diagnosis’.<sup>61</sup> The ‘justified’ were taken ‘side by side, before and after treatment, to celebrate or justify medical treatment’.<sup>62</sup> The final category of photographs Dermer describes as the ‘specular’, those which have ‘no discernable clinical value, and serve to represent medical authority over dead bodies or those which fall outside normalized modes of physical existence’.<sup>63</sup> In the last category however, she fails to recognize that the process of comparison, by necessity, involves the inclusion of images of extreme cases, which could be deemed to have clinical value. Furthermore, Dermer does not explain the interrelationship between the

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<sup>58</sup>Ibid.

<sup>59</sup>Burns, S.B. (1998) *A Morning’s Work: Medical Photographs from the Burns Archive and Collection, 1843-1939*, (Sante Fe: Twin Palms Publishers). See also J.-P. Witkin & S.B. Burns (eds.) (1987) *Masterpieces of Medical Photography: Selections from the Burns Archive* (Pasadena: Twelvetees Press); Witkin, J.-P. (1994) *Harm’s Way: Lust and Madness, Murder and Mayhem* (Sante Fe: Twin Palms Publishers); Witkin, J.-P. (1998) *The Bone House* (Sante Fe: Twin Palms Publishers). Burns, S.B. (1998) *A Morning’s Work*, pages unnumbered. Plate 66 ‘Orbital Abscess with Displacement of the Eye, 1893’, was taken by A.H. Geyer, Glasgow. This originally appeared in Ramsey, A.-M. (1898) *Atlas of External Diseases of the Eye* (Glasgow: James Maclehose), see Plate XLV, page 154, and pages 153-157. The Preface of the *Atlas* records that the photogravures, which includes this particular plate, were the work of the Glasgow photographers and engravers, Messrs. T. & R. Annan, Glasgow. See Burns’s foray into exhibitions, Gasser, J. & Burns, S.B. (1991) *Photographie et Médecine 1840-1880* (Lausanne: Bibliothèque Nationale Suisse).

<sup>60</sup>Dermer, R. (1999) ‘Joel-Peter Witkin and Stanley B. Burns: A Language of Body Parts’, *History of Photography*, 23: 245-253. For a description of each category see page 246.

<sup>61</sup>Ibid. 246.

<sup>62</sup>Ibid.

<sup>63</sup>Ibid.

‘practical’, ‘justified’, and ‘specular’ photographs, all of which could be encountered in one collection.<sup>64</sup>

This section has provided an outline of the major works produced by historians of photography and medical photography. The works of Gernsheim, McFall, Burns and Witkin, on the whole, tend to produce textual and visual chronological narratives, and are preoccupied with technical issues. They consciously select what Dermer would term ‘specular’ images, i.e. those of extreme abnormalities, usually without paying attention to their original contexts of production, circulation and use, as Barfoot and Morrison-Low’s study demonstrated in their study of early psychiatric photography.

### *Historians of Art and Visual Culture*

The work of historians of art and visual culture relating to photography has arguably had the most impact on the way historians of medicine have considered clinical photographs. Many theories derived from the history of art and visual culture have debated the artistic-scientific-mechanical nature of photography. There is a vast body of literature, which aims to encourage us to ‘look’ in particular ways.

Susan Sontag argues that we should see photography as an independent art. According to Sontag, photographs ‘are as much an interpretation of the world as paintings and drawings are’.<sup>65</sup> For Sontag, however, ‘photographic knowledge ... can never be ethical or political ... the knowledge gained through still photographs will

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<sup>64</sup>See O’Connor, E. (1999) ‘Camera Medica: Towards a Morbid History of Photography’, *History of Photography*, 23: 232-244. See also O’Connor, E. (2000) *Raw Material: Producing Pathology in Victorian Culture* (London: Duke University Press).

<sup>65</sup>Sontag, S. (1977) *On Photography* (New York: Farrar, Straus & Giroux), 6-7.

always be some kind of sentimentalism whether cynical or humanist.’<sup>66</sup>

Roger Scruton disagrees with Sontag’s argument. For Scruton the relationship between a photograph and its subject is ‘causal’, i.e. mechanical; it is merely a record of how its subject looked at the time it was taken.<sup>67</sup> But Scruton’s argument denies the influence the individual photographer has over lighting, exposure and printing of the image.<sup>68</sup>

Jonathon Crary argues that rather than stress the separation between art and science in the nineteenth century it is important to see how they were both part of a single interlocking field of knowledge and practice.<sup>69</sup> This observation has important implications for studying the history of clinical photography. Rather than having to decide whether a photograph is scientific or artistic, in Appendix IV of this thesis I will test the hypothesis that clinical photographs were considered as synthesis of these two traditions of representation.<sup>70</sup>

For Crary, it was during the early nineteenth century that there was a transformation in the way in which an observer was figured in a wide range of social practices and domains of knowledge.<sup>71</sup> At that time, optical devices were the sites of

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<sup>66</sup>Ibid. 23-34.

<sup>67</sup>Scruton, R. (1995) ‘Photography and Representation’, in A. Neill, & A. Ridley (eds.) (1995) *Arguing About Art: Contemporary Philosophical Debates* (New York: McGraw-Hill), 89-113.

<sup>68</sup>Savedoff, B. (2000) *Transforming Images: How Photography Complicates the Picture* (London: Cornell University Press). According to Savedoff, ‘it is because the photographer has this choice and control that we can evaluate photography as art’, 93-94. See also Savedoff, B. (1992) ‘Transforming Images: Photographs of Representations’, *The Journal of Aesthetics and Art Criticism*, 50: 93-106.

<sup>69</sup>Crary, J. (1996) *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (London: MIT Press).

<sup>70</sup>See Appendix IV, page 391.

<sup>71</sup>This is reminiscent of the work by Barbara Maria Stafford, which is concerned with the eclipse of the visual in education. See for example Stafford, B.M. (1999) *Visual Analogy: Consciousness as the Art of Connecting* (Cambridge: MIT Press); Stafford, B.M. (1996) *Good Looking: Essays on the Virtue of Images* (Massachusetts: MIT Press); Stafford, B.M. (1994) *Artful Science: Enlightenment, Entertainment and the Eclipse of Visual Education* (Massachusetts: MIT Press); Stafford, B.M. (1991) *Body Criticism* (Massachusetts: MIT Press).

new knowledge and power, which ‘operated directly on the body producing realistic effects in mass visual culture’.<sup>72</sup> The observer in the nineteenth century, Crary argues, was exposed to a new constellation of events, forces, and institutions, which he defines as modernity. The ‘observer became the subject of new knowledge and new techniques of power, emerging from the nineteenth-century science of physiology, and new knowledge about the eye and the process of vision’.<sup>73</sup>

In contrast, John Tagg argues that medical-clinical photography was a representational act rather than a creative undertaking.<sup>74</sup> Tagg applies Michel Foucault’s theories concerning observation, realism and objectivity in his exploration of the clinical gaze in nineteenth-century photography.<sup>75</sup> He argues that technical advances, which occurred during the mid-to-late nineteenth century, facilitated the expansion of photography into medicine.<sup>76</sup> It was within new institutions of knowledge, such as the hospital, that photography was to become perceived and accepted as a form of truth and evidence. Tagg’s argument implies that the medical profession as a whole accepted photography as a medium of truth. However, in reality there was no consensus. Arguments for and against the use of photography were regularly reported in nineteenth-century medical periodicals such as the *British Medical Journal (BMJ)* and *The Lancet*.<sup>77</sup>

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<sup>72</sup>Crary, J. (1996) *Techniques of the Observer*, 7.

<sup>73</sup>See T. Brennan & M. Jay (eds.) (1996) *Vision in Context: Critical and Contemporary Perspectives on Sight* (London: Routledge).

<sup>74</sup>Tagg, J. (1988) *The Burden of Representation: Essays on Photographies and Histories* (London: Macmillan Education). See also Tagg, J. (1984) ‘The Burden of Representation’, *Ten-8*, 14: 10-12.

<sup>75</sup>Foucault, M. (1973) *The Birth of the Clinic: An Archaeology of Medical Perception* (London: Tavistock Publications). For further discussions on objectivity and photography see Daston, L. & Galison, P. (1992) ‘The Image of Objectivity’, *Representations*, 40: 81-128.

<sup>76</sup>Tagg, J. (1984) *The Burden of Representation*, 12. Tagg was referring specifically to the introduction of dry-plate photography.

<sup>77</sup>This will be discussed in further detail in Chapter Three of this thesis.

Tagg sees the introduction of photography into late nineteenth-century hospitals as divided into 'the domain of artistic property resting on copyright protection, and the scientific and technical whose power was renunciation of privilege'.<sup>78</sup> He places clinical photography firmly within the scientific and technical category, where the format 'hardly varies at all, there are bodies and spaces, bodies of patients, forced to yield to the minute scrutiny of gestures and features'.<sup>79</sup> For these photographic portraits 'authorship was less than nothing, they served as evidence, record, the image had to speak for itself, though only qualified experts could read its lips'.<sup>80</sup> I would argue that Tagg's distinction between 'artistic' and 'scientific' is too simplistic. It denies the possibility that clinical photographs can be understood simultaneously, as both artistic and scientific.

Theories of the gaze have, however, become increasingly sophisticated. For example, Griselda Pollock suggests that one can read emotions of resentment and vanity within some photographic portraits.<sup>81</sup> She identified standardized rhetoric in photography relating to posture, gesture and position in relation to a viewer.<sup>82</sup> For Pollock it is the doctor – the onlooker – with the expert and controlling gaze who

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<sup>78</sup>Ibid. 12.

<sup>79</sup>Ibid. This is reminiscent of Sekula's work on criminal photography, see Sekula, A. (1986) 'The Body and the Archive', *October*, 39: 3-64.

<sup>80</sup>Tagg, J. (1992) *Grounds of Dispute: Art History, Cultural Politics and the Discursive Field* (Basingstoke: Macmillan), 129. I would argue photographs did not just serve as a record, but they had a definite provenance and context of use, particularly within medical teaching. Indeed, some surgeons were very interested in photographic authorship, as they gave the creator of the images some kind of status. Visual resources were also advertised in course prospectuses in order to attract prospective medical students.

<sup>81</sup>It was unlikely that patients could show any resistance to being photographed. It is interesting to consider the patient's predicament, being photographed in a hospital by an eminent surgeon. The 'emotional' aspects of reading photographs was discussed by Deitcher, D. (1998) 'Looking at a Photograph, Looking for a History', in D. Bright (ed.) (1998) *The Passionate Camera* (London: Routledge), 23-36.

<sup>82</sup>See Pollock, G. (1994) 'Feminism/Foucault-Surveillance/Sexuality', in N. Bryson, M. Holly (eds.) (1994) *Visual Culture: Images and Interpretations* (London: Wesleyan University Press), 1-42.

stands on the 'privileged side of the camera'.<sup>83</sup> Similarly, Daniel Chandler identified three forms of the gaze: the spectator's gaze, the direct gaze; and the look of the camera.<sup>84</sup> To this list he adds other forms of the gaze, such as those of 'the bystander, the audience of the text, and the editorial gaze'.<sup>85</sup> The work of Pollock and Chandler extends the opportunities for understanding 'the' gaze, and this may have particular relevance to the study of the history of clinical photography, particularly when the patient was photographed by an eminent surgeon.

One of John Tagg's protégés, Roberta McGrath, elaborates on the role of photography within medicine in an article entitled 'Medical Police'.<sup>86</sup> For McGrath medical photographs represent 'patients isolated, contained in spaces, turned full face and subjected to the unreturnable gaze, focused and measured'.<sup>87</sup> McGrath suggests that many medical photographs are 'silently pasted into record books, or circulated between consultants presenting us with a malicious pleasure of knowing. They appeal to the sadistic.'<sup>88</sup>

McGrath, does however, appear to have no problem in publishing copies of clinical photographs in her article.<sup>89</sup> McGrath's comments deny the images their original context and function, not only within the nineteenth-century medical curricula, but also as 'documents' for historical research. She argues that 'only by

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<sup>83</sup>Ibid. 20.

<sup>84</sup>Chandler, D. 'Notes on the Gaze', <http://www.aber.ac.uk/media/Documents/gaze/gaze.html> (29/11/01).

<sup>85</sup>Ibid. Chandler suggests one can assess the physical distance between the person depicted and the viewer, which can be either 'long, medium or close-up'. These correspond to physical spaces, namely 'personal, social and public'. See also Kern, S. (1996) *The Eyes Of Love: The Gaze in English and French Paintings and Novels 1840-1900* (London: Reaktion Books); Hau, A. (2000) 'The Holistic Gaze in German Medicine', *Bulletin of the History of Medicine*, 74: 495-524.

<sup>86</sup>McGrath, R. (1984) 'Medical Police', *Ten-8*, 14: 13-18. See also McGrath, R. (1995) 'Geographies of the Body and the Histories of Photography', *Camera Austria*, 51/52: 99-106.

<sup>87</sup>McGrath (1984), 13.

making a shift in emphasis from the aesthetic to the social functions could the history of photography move forward *again*'.<sup>90</sup> In 2002, McGrath expanded on her theories in a book entitled *Seeing Her Sex*.<sup>91</sup> Again, she condemned those who look at historical clinical-medical photographs of the female body, while at the same time using some of these images to support her argument and to illustrate her book.

The historian of art, Martin Kemp, also encourages us to look at the details in medical photographs with a more discerning eye. Kemp's work has done much to stimulate debate concerning the history of photography.<sup>92</sup> He argues that individuals were faced with a series of photographic choices, which included staging, exposure and printing.<sup>93</sup> By analysing each of these criteria one can gain insight into 'accessory and contextual information'.<sup>94</sup> Kemp suggests that the inclusion of details, such as the patient's clothes, are medically, but not socially, redundant. The border information in an image contributes to an understanding of the practice of medical photography.

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<sup>88</sup>Ibid. 15.

<sup>89</sup>McGrath has not only looked at medical photographs but used them to illustrate her article.

<sup>90</sup>Ibid. 13. See Benjamin, W., *The Work of Art in the Age of Mechanical Reproduction: A Short History of Photography* in H. Arendt, (ed.) (1973) *Illuminations* (London: Fontana Collins). See also Freund, G. (1980) *Photography and Society* (London: Gordon Fraser). For Roland Barthes, however, photographs could maintain the 'aura of lost times and lost memories'. Part of the photograph's aura, he argued, related to the 'Studium'. This can be a general, cultural interest in a particular photograph. Barthes's second term, the 'Punctum', describes the (accidental) photographic detail, which 'pricks' the viewer, resulting in a sudden recognition of meaning. This is particularly poignant and powerful when one is looking at photographs of strangers. See for example, Schmidt, P. 'Walter Benjamin and Roland Barthes on Photography and their Relevance for Photos found in second-hand shops', see <http://www.swarthmore.edu/Humanities/pschmid1> (27/05.02).

<sup>91</sup>McGrath, R. (2002) *Seeing Her Sex: Medical Archives and the Female Body* (Manchester: Manchester University Press).

<sup>92</sup>Kemp, M. (1988) 'A Perfect and Faithful Record: Mind and Body in Medical Photography before 1900', in A. Thomas & M. Braun (eds.) (1988) *Beauty of Another Order: Photography in Science* (London: Yale University Press) 120-235. See also Kemp, M. (1995) *Bodyscapes: Images of Human Anatomy from the Collections of St. Andrews University* (St. Andrews: Crawford Arts Centre); see also Kemp, M. (1996) 'Temples of the Body and Temples of the Cosmos: Vision and Visualization in the Vesalian and Copernican Revolution', in B.S. Baigre, (ed.) (1996) *Picturing Knowledge: Historical and Philosophical Problems Concerning the Use of Art in Science* (Toronto: University of Toronto Press) 40-85.

<sup>93</sup>The latter are the equivalent to Burns's phototaxic analysis, already described.

Kemp describes such details as ‘accessory images’. It is the posing of the patient, clothes, and setting which reflect both ‘conscious and unconscious choices’ of the photographer. He is keen to point out that ‘it was not so much that any doctor could simply become a photographer from the first, special skills and knowledge were involved in the production of photographs of the desired technical quality but rather that a layer of artistic mediation was eliminated’. Kemp goes on to describe two more theories. Firstly, ‘visual pointing’, which involves ‘diagrammatic reinforcement or photographic manipulation’.<sup>95</sup> And secondly, ‘the rhetoric of reality’, ‘in which the depiction includes a series of visual pointers to the author’s claim to be portraying the forms directly from life’.<sup>96</sup> Kemp’s theories regarding accessory images and border information are pertinent to the study of historical clinical photographs, and his ideas will be explored in Chapters Five and Six in this thesis.

Integrating images into historical research poses many problems for historians of medicine. As previously mentioned, Daniel Fox and Christopher Lawrence alerted us to potential pitfalls, such as presenting images in the form of ‘coffee table books’ or simply reaffirming what has already been said in the accompanying text.<sup>97</sup> Again, we can look to recent historiographic debates that champion the integration of images into historical research.

Hayden White’s theory of “*Historiophoty*” is arguably one of the most revelatory. White defines *historiophoty* as ‘the representation of history and our thought about it

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<sup>94</sup>Kemp, M. (1988) ‘A Perfect and Faithful Record’, 123.

<sup>95</sup>Ibid. 122.

<sup>96</sup>Ibid. 123.

<sup>97</sup>Fox & Lawrence (1988) 6.

in visual images and filmic discourse'.<sup>98</sup> For White, the cinematic sequences, montages or close ups predicate 'effectively as phrases, or sentence, or sequences of sentences in spoken or written discourse.'<sup>99</sup> For both White and Roland Barthes however, still photographs 'do not and could not predicate — only their titles or captions could do so.'<sup>100</sup> In this thesis however, I shall use still photograph in relation to contemporary visual and textual sources, which may be considered as an extended/accessory caption.

According to White:

The historical evidence produced by our epoch is often as much visual as it is oral and written in nature ... Modern historians ought to be aware that the analysis of visual images requires a manner of "reading" quite different from that developed for the study of written documents ... Some information about the past can be provided only by visual images.<sup>101</sup>

He suggests 'imagistic' evidence is not only atmospheric but also has the potential to be more accurate than verbal documentation. Moreover, White argues against the traditional use of images, where they function as mere illustrations or as a complement to text.<sup>102</sup> Crucially, he states that 'we have not on the whole exploited the possibilities of using images as a principal medium of *discursive* representation, using verbal commentary only diacritically, that is to say, to direct attention to specify, and emphasize a meaning conveyable by visual means alone.'<sup>103</sup> This is perhaps just one of the challenges facing historians of medicine, particularly those who are engaged with interdisciplinary and/or image based research. In Chapter Five of this thesis, I

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<sup>98</sup>White, H. (1988) 'Historiography and Historiophoty', *American Historical Review*, 93: 1193-1199.

<sup>99</sup>'Historiography and Historiophoty', 1196-1197.

<sup>100</sup>Ibid.

<sup>101</sup>Ibid. 1193-1194.

<sup>102</sup>Ibid. 1194.

shall demonstrate the importance of photographs that contain new clues regarding Sir William Macewen's practice of antiseptic-aseptic surgery during the late nineteenth century. While in the second section of Chapter Six I will reconstruct part of Macewen's collection of clinical photographs and re-present them in the order they were shown in surgical demonstration classes during the late nineteenth-early twentieth century.

Photographers, critics, and cultural historians have, on the whole, done much to champion the integration and presentation of images in historical research. Michael Lesy was one of the first to take a creative approach to the presentation of historical photographs, in his book entitled *Wisconsin Death Trip*.<sup>104</sup> Lesy arranged a selection of Charles Van Schaick's photographs into 'five primary sequences' that cover birth, life and death.<sup>105</sup> Lesy arranged the images in a form of 'surrealist montage'.<sup>106</sup> In a similar vein, John Berger and Jean Mohr in their book entitled *Another Way of Telling*, wanted to explore a possible theory of photography.<sup>107</sup> Berger and Mohr produced a sequence of a hundred and fifty photographs without words.<sup>108</sup>

### *Objectives*

From the outset it should be stated that this thesis is neither a study of medical photography, photomicrography, microphotography, X-rays, nor the history of

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<sup>103</sup>Ibid.

<sup>104</sup>Lesy, M. (1973) *Wisconsin Death Trip* (London: Allen Lane).

<sup>105</sup>Lesy, Preface, pages unnumbered.

<sup>106</sup>Ibid. 2.

<sup>107</sup>Berger, J. & Mohr, J. (1982) *Another Way of Telling* (London: Writers & Readers Publishing).

<sup>108</sup>Ibid. 7. Others have pursued similar lines of enquiry, including Robert M. Levine's study of 'Latin American Photographs as Documents'. Levine presents the photographs thematically, while adhering to a visual historical narrative, see Levine, R.M. (1989) *Images of History: Nineteenth and Early Twentieth Century Latin American Photographs as Documents* (Durham: Duke University Press).

medical illustration.<sup>109</sup> My primary aim is to test whether or not clinical photographs are a viable source for the study of the history of medicine. Two of my specific research questions are concerned with both surgical and photographic practices. For example, I aim to identify who was involved in the taking of clinical photographs, and the role of these images in Glasgow's surgical teaching and research culture. Moreover, I shall try to gain insight into what the medium of photography meant to those involved in the creation of this imagery. For example, did the creators of these images consider photography to be objective and/or truthful? Did they adhere to the accepted contemporary 'clinical' conventions or were those from earlier traditions of portraiture and medical illustration?

The photographs studied are derived from five interrelated contexts: firstly, I shall examine the clinical uses of popularized photographic techniques such as the stereograph, *carte-de-visite* and the cabinet cards.

Secondly, throughout the late nineteenth century, clinical photographs became a regular feature of the *Glasgow Medical Journal (GMJ)*. Initially many of these images were the work of professional studio photographers; however from the late 1880s and 1890s onwards, the *GMJ* began to feature images taken by medical men. This change in practice was facilitated by advances in printing technology and the advent of the dry-photographic plate, which made photography simpler and cheaper.

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<sup>109</sup>For a preliminary exploration of the links between clinical photography and medical illustration see Appendix IV in this thesis. Clinical photography is often referred to in texts on the history of medical illustration, see for example, Thornton, J.L. & Reeves, C. (1983) *Medical Text Book Illustration: A Short History* (Cambridge: Oleander Press), see especially pages 109, 113-114; Roberts, K.B. & Tomlinson, J.D. (1992) *The Fabric of the Body: European Traditions of Anatomical Illustration* (Oxford: Clarendon Press), 109.

This resulted in the greater dissemination of clinical photographs into periodicals, M.D. theses, etc.

Thirdly, during the same period, clinical photographs were included within the context of surgical ward journals and pathology reports of the Glasgow Western Infirmary (WI) and the Royal Hospital for Sick Children, Glasgow (RHSC). Many of these photographs were the work of House Surgeons and Resident Assistants.

Fourthly, during the early 1880s one of Glasgow's most eminent surgeons Dr (later Professor Sir) William Macewen (1848-1924) began to take clinical photographs for inclusion in his Private Journals (PJS). At this time Macewen was surgeon to the Glasgow Royal Infirmary (GRI), and lecturer at the GRI Medical School. During this period Macewen also began a collection of clinical photographs, plaster casts and specimens that he used for teaching purposes.

Finally, in 1892 Macewen was installed as Regius Professor of Surgery at the University of Glasgow, and Visiting Surgeon to the WI. He expanded all of the collections he had begun while at the GRI, and he used them in surgical demonstration classes at the University.

Many previous studies have been content with presenting a visual and seamless chronological narrative of clinical photography, irrespective of its local contexts of production, use and circulation. The contextual approach, as advocated in Barfoot's and Morrison-Low's case study of clinical psychiatric photography, emphasized the need to analyze and relate images to their local contexts of production and circulation. This study intends to take such an approach further by expressing visually the

narratives that exist between photographs, images, text and artifacts.<sup>110</sup> This is not only to encourage image-based research, but to present the results in a convincing, discursive and creative way.<sup>111</sup>

As a result therefore, this study aims to provide a unique insight into late nineteenth century surgical and photographic practices, and the role of images in teaching and research using previously unexplored sources.

### *Sources*

This study focuses on late nineteenth-century clinical photographs relating to the GRI, the WI and the RHSC. These were selected for study because they are three of the most important teaching hospitals in Glasgow. Moreover, the records for each of these institutions are nearly complete, they are readily accessible, and are an under-utilized resource.

The GRI has an almost complete run of ward journals and minute books, held in the Greater Glasgow Health Board Archive (GGHBA). Unfortunately there are no surviving pathological reports. As noted above Macewen documented many of the cases he encountered on the wards of the GRI in a series of PJS. These are now held as part of the 'Macewen Papers' in the archive of the Royal College of Physicians and Surgeons, Glasgow (RCPSG).<sup>112</sup> The Library of the RCPSG also holds complete runs

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<sup>110</sup>For the visual association between patient, photograph and specimen see Bengston, B.P. & Kuz, J.E. (1996) *Photographic Atlas of Civil War Injuries, Photographs of Surgical Cases and Specimens: Otis Historical Archives* (Georgia: Kennesaw Mountain Press). Here photographs of patients, specimens and casts are presented in the form of a catalogue accompanied by case notes.

<sup>111</sup>In the present thesis the double A3 folded sheets represent sequences, relating for example to the work of one individual, for example see a selection of Lewis R. Sutherland's photographs in the WI ward journal see [plates 20-23: page 107; 24-26:108]; or a chronological sequence in the CC, see for example, [164-168:274; 169-172:275].

<sup>112</sup>Only nine volumes are extant, but their original numbering system suggests that there were a

of the *BMJ*, *The Lancet* and the *Glasgow Medical Journal (GMJ)* and also holds the Minute Books of the Glasgow Pathological and Clinical Society.<sup>113</sup>

William Macewen's collection of clinical photographs is described in the index of the GGHBA as the 'GRI Collection of Clinical Photographs'.<sup>114</sup> Each photograph is mounted on to a sturdy board, on the verso of which are brief handwritten case notes. Some of these details can be cross-referenced to some of the GRI ward journals.<sup>115</sup> However, the majority of the patient details correspond to the WI ward journals, pathological reports, and ward day books, rather than to those of the GRI.

The WI has a complete run of ward journals, ward daybooks and minute books held in the GGHBA. The WI Pathology Reports are held in the Glasgow University Archives and Business Records Centre (GUABRC).<sup>116</sup> These sources, as L.S. Jacyna noted, commenced in '1874 and, with a few minor gaps, provide a continuous record of the early history of the Infirmary ... many other aspects of clinical practice of the late nineteenth and early twentieth centuries could be explored with great profit by further examination of this source'.<sup>117</sup> The GUABRC also hold some of William Macewen's Papers, and a complete run of Glasgow University Court and Senate

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minimum of fifteen. The Macewen Papers can be located in the index to the RCPSG collections under Reference RCPSG10.

<sup>113</sup>Ref. RCPSG4.

<sup>114</sup>GGHBA, Ref. HB14/19/1-74. See the work of John Pickstone regarding the creation of collections and case histories as 'contributions to the collective stores of observations', see Pickstone, J.V. (2000) *Ways of Knowing: A New History of Science, Technology and Medicine* (Manchester: Manchester University Press), 68.

<sup>115</sup>Here I am specifically referring to those ward journals relating to Macewen, for example, Wards XV, XVIII, XXI and XXII. The surviving journals can be found under the GGHBA, Reference HB14.

<sup>116</sup>Western Infirmary Pathological Reports, 1876-1924, P5/1/1-50; Western Infirmary Pathologists Reports, 1898-1925, P5/2/2/7-97.

<sup>117</sup>Jacyna, L.S. (1988) 'The Laboratory and the Clinic: The Impact of Pathology on Surgical Diagnosis in the Glasgow Western Infirmary, 1875-1910', *Bulletin of the History of Medicine*, 62: 384-406.

Minutes, and the Minutes of the Glasgow Medico-Chirurgical Society.<sup>118</sup>

From the early 1880s Macewen was surgeon to the RHSC. The RHSC's Yorkhill Archive holds a complete run of surgical ward journals from 1883 onwards. The RHSC pathology reports are held in Yorkhill Hospital's Department of Pathology.

What remains of Macewen's collection of specimens and casts is now held within the GRI Pathology Museum.<sup>119</sup> The Royal College of Surgeons, England (RCSE) hold Macewen's instruments relating to intubation, pathological specimens; as well as Joseph Lister's Papers.

As I have already stated, the surviving ward journals, pathological reports and ward daybooks of the GRI, WI and RHSC are important sources for this research, providing vital details of the patient's diagnosis and treatment. Case notes often contain graphic clues such as photographs, temperature charts and pulse tracings etc., which give further expression and an additional dimension to understanding a variety of practices.<sup>120</sup> Thus, taking a contextualised approach to the study of late nineteenth-century clinical photography in Glasgow allows us, in the Ackernechtian sense, to see what surgeons did, rather than said.<sup>121</sup> Increasingly, however, historians of medicine are being encouraged to take a 'patient-centred' approach. This has resulted in the publication of several influential works such as those by G. Risse and John Harley Warner, in which the use of case notes was linked with a new social history.<sup>122</sup>

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<sup>118</sup>The GUABRC also hold a collection relating to Macewen, Ref. DC79; Court Minutes, Ref. C1, Senate Minutes, Ref. S1; Minutes of the Glasgow Medico-Chirurgical Society, DC373.

<sup>119</sup>There is a large cabinet, entitled 'Sir William Macewen [1848-1924]' within the GRI Museum, which is located within the GRI's Department of Pathology.

<sup>120</sup>See for example Dr Joseph Coats's use of cytometer tracings, in the Western Infirmary Journal for Ward XI, Volume XIII, HH66/11/14.

<sup>121</sup>Ackernecht, E. (1967) 'A Plea for a "Behaviorist" Approach in Writing the History of Medicine', *Journal of the History of Medicine and Allied Sciences*, 22: 211-214.

<sup>122</sup>See for example Risse, G. & Warner, J.-H. (1992) 'Reconstructing Clinical Activities: Patient

Although some of these works refer to photography, few discuss the role of photography in case notes in any great detail.<sup>123</sup>

Both nineteenth-century medical and photographic periodicals contain invaluable information relating to the practice of clinical photography. While the *Photographic News* and the *Photographic Journal* are, somewhat expectedly, preoccupied with technical issues, they also engage in debate which seeks to encourage the use of photography within mainstream hospital practice, through the creation of illustrated case notes and teaching collections. Glasgow's Mitchell Library holds many of the popular nineteenth-century photography periodicals.

### *Methodology*

Locating clinical photographs for research purposes is problematic. Many of the sources are fragmentary, difficult to locate and access. I was fortunate enough to find a large collection of clinical photographs in the GGHBA, filed under the heading of the GRI. However, little was known about the originators of the collection. Once I had ascertained that Macewen was the originator of the collection, I cross-referenced photographs with WI case notes and pathology reports and Macewen's PJS. Much of this research has been achieved by using patient-recognition, i.e. by cross-referencing facial features, and case notes in contemporary sources, such as ward journals, casts

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Records in Medical History', *Social History of Medicine*, 5: 183-205; Reiser, S. (1991) 'The Clinical Record in History, Parts I & II', *Annals of Internal Medicine*, 114: 902-907 & 980-985; Fissell, M. (1991) 'The Disappearance of the Patient's Narrative and the Invention of the Hospital', in R. French & A. Wear (eds.) (1991) *Medicine in an Age of Reform* (London: Routledge), 92-109.

<sup>123</sup>Much of this literature is concerned with case notes and technology, see for example: Reiser, S.J. (1993) 'Technology and the use of the Senses in Twentieth-Century Medicine', in W.F. Bynum & R. Porter (eds.) (1993) *Medicine and the Five Senses* (Cambridge: Cambridge University Press), 262-273; see also, Howell, J.D. (1995) *Technology in the Hospital: Transforming Patient Care in the early Twentieth Century* (London: John Hopkins University Press).

and specimens. As Macewen worked at the GRI, WI and RHSC, I examined the surviving ward journals and pathology reports of these institutions in order to gain an overall perspective on the role of clinical photography. Throughout my research I took photographs of the images I found, many of which are reproduced in this thesis in the form of laser copies. Images in general, and photographs in particular, were central to my research and it was important for them to be included within the main body of the text, rather than being relegated to an appendix.<sup>124</sup> Each photograph is numbered, followed by the page number. For example image number 1 appears on page 50, and will be represented in the text as follows: [1:50].

Macewen's collection of clinical photographs developed over a period of thirty years or so, and currently contains over eight hundred items. Thus, for this study, a process of image selection was inevitable. The images in Chapters Two to Seven have been selected by me, primarily to demonstrate aspects of surgical and photographic practices. However, Chapter Six, Section II attempts to reconstruct fragments of Macewen's collection of clinical photographs and how they were used in his surgical demonstration classes. Therefore, this section may override any bias in selection by the current author. In some instances, the case notes are comprehensive, allowing me to connect the photographs to contemporary ward journals and pathology reports. Even where case notes are minimal, for instance undated, either the recognition of patient's facial features in published sources, or the rarity of their disease, would allow me to build up further details of the individual patient. Throughout the thesis, I shall endeavour to take a patient-centred approach. Many of these patients were what was

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<sup>124</sup>The photographs reproduced in this thesis are not true to the original scale. Where possible, the original dimensions of the photographs are given in the text, footnotes or appendices.

described as the deserving poor; however there are also a handful of private patients discussed in this study. In the text, each patient's name will be reduced to their initials.

The GRI-Macewen collection of photographs was organized by numbering and lettering systems. These, together with the modern archival references, were entered into a database and sorted chronologically, allowing me to understand how the collection developed over time. However it should be noted that not all of the items in the collection were lettered or numbered. Nevertheless some features of each image were recorded in the database. Analyzing these criteria allowed me to reconstruct parts of the collection and re-present it in its 'original' order.<sup>125</sup>

In addition I shall take an interdisciplinary approach to the study of clinical photographs, by drawing on theories derived from historians of medicine, historians of photography and those from the history of art and visual culture. In many respects recovering part of this meaning is intimately connected with local contexts of production, circulation and use, as Barfoot's and Morrison-Low's study showed. For comparative purposes I examined clinical photographs in a number of contexts, including the Lothian Health Board Archive, at the University of Edinburgh; the Iconographic Collections at the Wellcome Institute, London; the Archives of St. Bartholomew's Hospital and Great OStreet, London; the Royal College of Surgeons, England and the University Museum of Utrecht. The last mentioned are discussed in Appendix V of this thesis.

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<sup>125</sup>Identifying print types, such as collodion, etc. is the job of an expert and experienced historian of photography. Therefore, I had to rely on showing a selection of photographs, from Macewen's Private Journals and his teaching collection, to Professor Larry Schaaf, Project Director of the 'Correspondence of William Henry Fox Talbot', University of Glasgow.

### *Plan of Thesis*

The first chapter places the history of clinical photography within a broader medical, photographic and historiographical context. Chapters Two to Six begin with an overview of contemporary debates surrounding photography and medicine. Chapter Two sketches an outline of the developments in mid-to-late nineteenth-century photography at an international level, relating their impact in Glasgow. These findings provide a context for understanding the variety of ways in which two Glasgow surgeons, Joseph Lister and William Macewen, began to use popular photographic techniques such as the stereograph, *carte-de-visite* and the cabinet card for clinical purposes. Lister's use of photography may have been intermittent, while for Macewen, it was part of a sustained practice. Advances in photography and printing led increasingly to the inclusion of clinical photographs in the *GMJ* from the late 1870s onwards; this will be the focus of Chapter Three. Many of these images were the work of local professional studio photographers and, increasingly, Glasgow medical men. A decade or so later, one sees the introduction of clinical photographs in the ward journals and pathology reports of the WI and the RHSC. These were taken by House Surgeons, and Resident Assistants, such as Lewis R. Sutherland of the WI, and George Henry Edington of the RHSC; their work will be discussed in Chapter Four and presented in a number of visual narratives.<sup>126</sup> Sutherland and Edington evidently exercised a degree of autonomy, choosing which case to photograph, and what conventions to use. Their photographs were part of a sustained practice, carried out with the hospital. Chapter Five charts the early life and career of Dr William

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<sup>126</sup>The WI Pathological Reports contained a variety of tracings and drawings which will be discussed in Appendix One.

Macewen. In 1881 Macewen began photographing some cases that entered his wards at the GRI for inclusion in his PJS. Aspects of Macewen's photographic practice will be examined, using Martin Kemp's ideas of accessory images. Moreover many of Macewen's clinical photographs can be considered as portraits; in some instances the pathology seems almost incidental. Macewen's surgical practice in relation to pathology and trauma of the brain, intubation of the larynx and orthopaedics will also be examined. From the early-to-mid 1880s Macewen began to duplicate some of the photographs from his PJS for inclusion in a collection that was used for teaching purposes. This format was an enlarged and medicalised version of the *carte-de-visite* and the cabinet card, later referred to in the medical press as the 'Card Specimen'. The sixth chapter is divided into four sections. The first begins with an explanation of the methods used to identify and authenticate Macewen's collection of clinical photographs. Using an original scheme of classification, numbering and lettering systems, I shall reconstruct and re-present parts of three demonstrations relating to 'Tumours', 'Hernia' and 'Deformities', in Section II. Section III discusses the work of those who contributed to Macewen's collection of clinical photographs. The fourth and final section of Chapter Six places photography within the broader context of Macewen's teaching practice. This is followed by some conclusions and four appendices. The first discusses some drawings and tracings in the WI Pathology Reports; while Appendix Two relates to 'Fractures and Dislocations' demonstration. Appendix Three contains copies of plans of Macewen's Surgical Laboratory. Finally, Appendix Four discusses the relationship between medicine, art and photography.

## **Chapter Two: Photography in Context**

The aim of this chapter is to explore the role of clinical image within the context of popularised photographic techniques. It begins with an overview of the major advances in photography that occurred during the mid-to-late nineteenth century, charting their impact in Glasgow. During this period a number of popularised techniques such as the stereograph, *carte-de-visite* and cabinet card were utilised by two Glasgow surgeons, Joseph Lister and William Macewen, for clinical purposes. These images are important because they not only attest to the dissemination of photographic knowledge, but also to the increasing importance of images within the late nineteenth-century surgical teaching and research culture.

### **Overview**

From 1839 onwards, medical men were among those involved with the evolution of photographic technology.<sup>1</sup> The daguerreotype became the dominant mode of portraiture, named after its creator Louis-Jacques-Mande Daguerre (1787-1851).<sup>2</sup> There were two drawbacks to the process. The metal-coated plates required long

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<sup>1</sup>Joseph Nicéphore Niépce (1765-1833) has been credited with creating the first fixed photographs, heliographs, and sun drawings during the 1820s. See for example: Coe, B. (1976) *The Birth of Photography: The Story of the Formative Years 1800-1900* (London: Ash & Grant). See also Sennett, R.S. (1985) *Photography and Photographers to 1900: An Annotated Bibliography* (London: Garland Publishing); Gernsheim, H. (1955) *The Rise of Photography 1850-1880: The Age of Collodion* (London: Thames & Hudson).

<sup>2</sup>Daguerreotype cameras consisted of two wooden boxes, which fitted together neatly. One held the lens and the other a focusing screen. In January 1839 Daguerre patented his process, which involved polishing a silvered copper plate, which could then be made light sensitive by exposing it to iodine vapour. The plate was then loaded into a camera and exposed to light for long periods of time, but only a latent image formed in the silver iodide layer.

exposure times, and the image itself could be easily destroyed if touched. Each daguerreotype was unique. The method, however, satisfied the scientists' demand for sharpness and acuity, and was thus described as a 'mirror with a memory'.<sup>3</sup>

Late in 1842, Mr Edwards set up the first daguerreotype 'portrait saloon' in Glasgow, located at 43 Buchanan Street.<sup>4</sup> It was purpose built to take advantage of the available natural light. The opening of the salon caused great excitement, and was documented in the local press, where Edwards boasted that he could produce 'truthful, living' portraits of individuals.<sup>5</sup>

In 1841 William Henry Fox Talbot (1800-1877) announced his 'calotype process'. This was a silver based process on paper, rather than on a metal plate, and was used almost exclusively for making in-camera negatives. These were made by developing a latent image by the action of light which was amplified chemically, so reducing the exposure time.<sup>6</sup> Talbot placed moist light-sensitive paper into small wooden cameras and exposed for anything from ten seconds up to an hour.<sup>7</sup> The resulting prints had the ability to record good detail, but were considered to have

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<sup>3</sup>Briggs, A. (1988) *Victorian Things* (London: Penguin), 124. It was not long until this technique attracted the attention of mid-nineteenth-century medical men. In an operating room of the Massachusetts General Hospital, Boston, in 1846 the first successful operation took place using ether. This was re-enacted for a photographer, who created one of the first daguerreotypes of a medical subject. This photograph has been reproduced in many texts, see for example, I. Loudon (ed.) (1997) *Western Medicine: An Illustrated History* (Oxford: Oxford University Press). The original photograph was taken by Josiah J. Hawes with Albert S. Southworth. See also <http://www.usc.edu/schools/annenberg/asc/projects/comm544/library/images/169.html> (31.7.02).

<sup>4</sup>Hannavy, J. (1985) *A Moment in Time: Scottish Contributions to Photography, 1840-1920* (Glasgow: Third Eye Centre), 8.

<sup>5</sup>Building on this success, he set up another studio in Dumfries. Eventually Edwards employed staff to oversee the running of both studios. Both turned out to be short-term ventures.

<sup>6</sup>Schaaf, L.J. (2000) *The Photographic Art of William Henry Fox Talbot* (Oxfordshire: Princeton University Press). The calotype was also known as the 'Talbotype', see page 260.

<sup>7</sup>For information on salted papers see Reilly, J.M. (1980) *The Albumen and Salted Paper Book: The Practice of Photographic Printing 1840-1855* (Rochester: Light Impressions Corporation). In the Preface, Reilly states that 'salted paper dominated photographic practice from 1840-1855'. Coe, B. & Haworth-Booth, M. (1983) *A Guide to Early Photographic Processes* (Westerham: Hurtwood in

inferior sharpness, and therefore to be 'softer' and more artistic than the daguerreotype. The calotype, however, had one major advantage over the daguerreotype, in that multiple prints could be made from one paper negative.<sup>8</sup>

Sir David Brewster (1781-1868) began teaching the calotype process in Scotland. One of his 'pupils' was Dr John Adamson (1809-1870).<sup>9</sup> It was Adamson who taught his younger brother Robert the calotype process. By July 1843, Robert Adamson had set up his own studio in Edinburgh.<sup>10</sup> However, it was some time later that he entered into a partnership with David Octavius Hill (1802-1870), setting up a photographic studio together in Rock House on Calton Hill, Edinburgh.<sup>11</sup> Although their partnership lasted only a few years, due to Adamson's untimely death, they created some enduring images.<sup>12</sup> As we have already seen in Chapter One, some commentators have attributed one of the earliest clinical photographs to Hill and Adamson.<sup>13</sup>

In November 1847, Frederick Scott Archer (1813-1857), a sculptor by profession, learned the calotype process from Dr. Hugh Welch Diamond (1809-1886), a general

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association with the Victoria & Albert Museum) page 17, lists the exposure times.

<sup>8</sup>In 1852 Talbot relinquished his patent rights in the paper negative process for all uses except commercial portraiture.

<sup>9</sup>For further information regarding Brewster's links with photography in Scotland, particularly St. Andrews University, see Smith, G. (1990) *Disciples of Light: Photographs in the Brewster Album* (Malibu: J. Paul Getty Museum).

<sup>10</sup>This is according to Larry Schaaf, Director of The Correspondence of William Henry Fox Talbot Project.

<sup>11</sup>For information relating the photographs produced by Hill and Adamson see Stevenson, S. (1981) *David Octavius Hill and Robert Adamson: Catalogue of their Calotypes taken between 1843 and 1847 in the Collection of the Scottish Portrait Gallery* (Edinburgh: National Galleries of Scotland).

<sup>12</sup>Stevenson, S. (1990) 'Recent Discoveries in early Scottish Photography', in M. Pritchard (ed.) (1990) *Technology and Art: The Birth and Early Years of Photography* (Bath: Royal Photographic Society Historical Group), 33-38.

<sup>13</sup>Wilson, G.M. (1973) 'Early Photography, Goitre, and James Inglis', *British Medical Journal*, II:104-105. According to Wilson, Hill and Adamson may have taken one of the first 'clinical' photographs showing a case of goitre, sometime between 1843 and 1847.

practitioner, and pioneer in the field of clinical psychiatric photography.<sup>14</sup> According to France Scully Osterman, a modern-day collodion specialist:

Archer was sick for many years and Dr. Hugh W. Diamond was his medical attendant. I had the impression that at that time, Diamond was living in London, where Archer was also living and working. Archer was a sculptor and wanted to learn photography as an aid to making sculpture. Diamond was a member of the Calotype Society. In 1847, Archer learned to make calotypes from Diamond, but ultimately was dissatisfied with the results. It's easy to imagine why; with paper negatives you get very little detail, so the images might be less useful as reference material for sculptures. That is why Archer set about to find a process of photography which would give more detail ....<sup>15</sup>

Archer's method involved using collodion, made by dissolving a form of gun cotton in ether, which was then used to coat glass plates.<sup>16</sup> Details of Archer's wet-

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<sup>14</sup>In 1848 Diamond was appointed Medical Superintendent of Female Patients at the Surrey Asylum, where he engaged in taking some of the earliest clinical psychiatric photographs, from 1852 using the collodion process. See Burrows, A. & Schumacher, I. (1990) *Portraits of the Insane*. Diamond was one of the founders of the Royal Photographic Society in 1853. From 1865 he edited the periodical entitled *Photographic News*. Diamond was among a number of medical men who had used photography for clinical purposes. Dr Arthur Julius Pollock (1835-1890), a physician in London, photographed 'people with deformities which were assembled in what was intended to be a more extensive collection in an album belonging to the Royal College of Medicine', see Seiberling, G. (1986) *Amateurs, Photography, and the Mid Victorian Imagination* (Chicago: The University of Chicago Press), 142. Wills, C. & Wills, D. (1980) *History of Photography, Techniques and Equipment* (London: Hamlyn), refer to 'an operation performed by J. Sampson Gamgee, a surgeon at the Queen's Hospital in Birmingham ... which took place in September ... the book includes original photographs of [the patient] taken by Napoleon Sarony at his studio in 66 New Street, Birmingham, immediately before the operation and again afterwards, showing the severed limb healing', 147. See also Gamgee, J.S. (1865) *History of a Successful Case of Amputation at the Hip Joint* (London: John Churchill). C. Wills & D. Wills mention 'the Parisian photographer Pierre Petit who took post-operative photographs of the specimens from a limb which had been prepared by Professor Housel and Professor Robin for microscopic examination. The book is certainly the earliest photographically illustrated accounts of an operation to be published,' 147. In 1863 Richard Barwell's book included photographs of diseased limbs see Barwell, R. (1863) *On the Cure of Clubfoot without Cutting Tendons: and on Certain New Methods of Treating other Deformities* (London: Churchill).

<sup>15</sup>France Scully Osterman (Pers. Comm., 19.7.02).

<sup>16</sup>Archer, F.-S. (1851) 'On the use of Collodion in Photography', *The Chemist*, 2: 257-258. A quantity of collodion containing potassium was poured onto a perfectly clean glass plate. By tilting the plate the collodion was made to flow evenly over the surface. When the ether had evaporated, leaving a tacky coating on the plate, it was plunged into a bath of silver nitrate to sensitize it. The wet plate was loaded into a plate holder and exposed in the camera. Immediately after exposure the plate was developed, fixed and washed. For further information regarding the collodion process see <http://www.collodion.org> (19.7.02).

collodion process and albumen printing paper were published in March 1851.<sup>17</sup> His process revolutionized photography, and by 1860 the daguerreotype and the calotype process were virtually obsolete. The prepared paper was placed in close contact with the glass negative in a printing frame and exposed directly to strong daylight. When the desired density had been reached, the print was removed from the frame in the darkroom, fixed and usually toned, by a process using gold, giving the image a purple-black colour, and helping improve its permanence. The collodion negative could record fine detail and subtle tones and had the advantage of being much more sensitive than either the daguerreotype or the calotype process. The exposure times were reduced from minutes to seconds.<sup>18</sup> Albumen printing paper was ideal for the glass collodion negative and remained in almost universal use until the 1890s.<sup>19</sup>

One major drawback encountered with the wet-collodion process was the need to expose and process the plate while still wet. This meant that the photographer had to carry his darkroom with him if working away from home. Portable darkrooms were sold, usually in the form of a tent-like structure that collapsed into boxes the size of large suitcases. As well as a dark tent, the photographer had to carry the camera, plate-holders and tripod.<sup>20</sup> In addition to chemicals for coating, sensitizing, developing and fixing, plates were required and a container for water. This shows the

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<sup>17</sup>Ibid.

<sup>18</sup>Eder, J.M. (1945) *History of Photography* (New York: Columbia University Press). Eder estimated that the average exposure time required for a calotype print in 1841 was three minutes, whilst in 1851, Archer's wet-collodion process required only ten seconds exposure time, see for example, page 439.

<sup>19</sup>Louis Desire Blanquart Evrard (1802-1872) sought to improve the collodion process. He found that by coating paper with albumen before sensitising with silver nitrate, a smooth, slightly lustrous surface was achieved. The new process improved the ability of the paper to record fine detail and the albumen paper print was rather less prone to fading than the calotype.

<sup>20</sup>From circa 1860 the heavy and bulky sliding body camera, typical of the Daguerreotype period rapidly gave way to the folding bellows type. By this ingenious design a camera quite large when erected, could be made to collapse into a small, lightweight package.

lengths to which many enthusiasts would go to in order to take photographs.

The wet-collodion process accelerated the expansion of photography in Glasgow. John Urie (1820-1910) was one of the first to advertise his 'Engraved Photographs' in the *Glasgow Post Office Directory*, for 1852.<sup>21</sup> Urie announced that 'the recent extraordinary improvements in Photography have induced him to apply that Art for the advancement of his own ... from representations of natural objects, taken directly on the wood by light'.<sup>22</sup> In the 1854-1855 edition of the *Glasgow Post Office Directory*, the heading 'Photographic Artists' first appeared, under which nine entries were recorded.<sup>23</sup> Some studios invested in large advertisements located in the back of the directories.<sup>24</sup> This was the period when some of the most famous names were to establish their businesses, including Thomas Annan (1829-1887) who set up a calotype-collodion business with a medical student named Berwick, which began in 1855 and lasted until 1857.<sup>25</sup> T. & R. Annan & Co., as they were later called, undertook commissions from Glasgow medical men.<sup>26</sup>

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<sup>21</sup>*The Glasgow Post Office Annual Directory 1852-1853* (Glasgow: William Mackenzie, 1852), 187. Urie was described as a Draughtsman & Engraver on Wood, rather than a photographer. By 1854 he had created the 'Relievo Process', whereby the background of a photographic portrait was scraped away, or the sitter was photographed against a dark background, in order that the figure would stand out.

<sup>22</sup>*Ibid.* 187.

<sup>23</sup>*Ibid.* 598-599.

<sup>24</sup>*Ibid.* 237.

<sup>25</sup>Thomas Annan was hired to take photographs of Glasgow's slums for the City Improvement Trust. See Annan, T. (1872) *Glasgow Improvements Act, 1866: Photographs of Streets, Closes &c. Taken 1868-71* (Publication details unknown); see also, Annan, T. (1877) *Glasgow City Improvement Trust: Photographs of the Old Closes, Streets etc. Taken 1868-1877* (Publication details unknown). For a general introduction see 'Glasgow before the 19<sup>th</sup> Century Slum Clearances: Photographs of Glasgow taken by Thomas Annan between 1868 and 1877'; in J. Beaton, R. Miller, I.T. Boyle (eds.) (1998) *Treasures of the College* (Glasgow: Carynx Group), 144-147; T. & R. Annan & Co., was continued, following Thomas's death, by his son, James Craig Annan (1864-1946).

<sup>26</sup>See Baldwin, G. (1991) *Looking at Photographs: A Guide to Technical Terms* (London: J. Paul Getty Museum), 67. According to Baldwin, the photogravure, also known as heliogravure, is (arguably) the finest photomechanical means for reproducing a photograph in large editions.

In 1855, Glasgow was chosen as the venue for the meeting of the British Association for the Advancement of Science.<sup>27</sup> This prestigious event included an exhibition of paintings in the McLellan Galleries, Sauchiehall Street, Glasgow. In the centre of the exhibition hall were examples of the ‘new art’; these were stereoscopic pictures by Claudet of London.<sup>28</sup> This meeting was of great significance, as it attested to the growing cultural status of the City of Glasgow.<sup>29</sup> Four years later, the Glasgow Photographic Society was founded. Accordingly, the Society held an exhibition in April the same year, in the gallery of the Crystal Palace, 67 Buchanan Street, Glasgow. The exhibition included work of national photographers such as Roger Fenton and Oscar Rejlander, which was shown alongside that of locals such as Thomas Annan and the more obscure Dr R. Paterson.<sup>30</sup>

### ***George Buchanan and the Wet-Collodion***

The surgeon George Buchanan (1827-1906) may have been one of Glasgow’s first medical men to use the wet-collodion process, in 1855.<sup>31</sup> Buchanan was the son of Dr Moses Buchanan, Lecturer in Anatomy at the Anderson’s Medical College,

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<sup>27</sup>Buchanan, W. (1989) ‘State of the Art, Glasgow, 1855’, *History of Photography*, 13: 165-180.

<sup>28</sup>Ibid. 165.

<sup>29</sup>Glasgow would also hold a number of Great Exhibitions, see, for example, Kinchin, P. & Kinchin, J. (1988) *Glasgow’s Great Exhibitions 1888, 1901, 1938, 1988* (Wendlebury: White Cockade Publishing).

<sup>30</sup>R. Paterson M.D., exhibited collodion portraits including one of the Reverend A. Buchanan of Leith. See *Catalogue of the Exhibition of Photographic works held in the Gallery of the Crystal Palace 67 Buchanan Street, April 1859* (Glasgow: S. & T. Dunn, 1859), 1. Oscar Rejlander (1817-1875) went on to take photographs for inclusion in one of Charles Darwin’s publications, see Darwin, C. (1872) *Expression of the Emotions in Man and Animals* (London: John Murray).

<sup>31</sup>See Downie, J.-W. (1923) *The Early Physicians and Surgeons of the Western Infirmary, Glasgow* (Privately Printed).

Glasgow.<sup>32</sup> George Buchanan would later be installed as the first incumbent of the Chair of Clinical Surgery at the University of Glasgow and Visiting Surgeon to the WI. Buchanan was held in high esteem by many of his former students and colleagues. For example in an address given by Sir William Macewen, on being installed as Professor of Clinical Surgery at the University of Glasgow in 1892, he stated that 'George Buchanan's wards were the first I ever entered. He was one of the heroes of those days; his practical training and his kindly manner are ever remembered.'<sup>33</sup>

In July 1855 Buchanan began taking photographs while serving as a volunteer temporary civil surgeon in the Crimean War. Although his photographs were not clinical in nature in this instance, later in his career, Buchanan would renew his links with photography.<sup>34</sup> Buchanan recorded his journey in a two-volume diary, which contained several drawings, maps and paintings. The diary contained several photographs of military emplacements 'reminding us that this was the first major conflict of which there is a photographic account'.<sup>35</sup> It is conceivable that Buchanan acquired his knowledge of photography, and all the equipment and materials, in Glasgow.

Buchanan made only a brief visit to the Crimean front. He met up with a former student and friend, the physician John Black Cowan, before moving on to take up

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<sup>32</sup>'Obituary, George Buchanan', (1906) *Glasgow Medical Journal*, 65: 354-355.

<sup>33</sup>Macewen, W. (1892) 'Inaugural Address at the Opening of the Course of Surgery at Glasgow University', *Glasgow Medical Journal*, 38: 322. Visual media were evidently part of Buchanan's teaching methods, see for example Buchanan, G. (1855) 'On the Utility of a Skeleton Articulated with Caoutchouc, as an Aid to Illustrating the Diagnosis of Dislocations, with Two Drawings', *Glasgow Medical Journal*, 3: 184-189.

<sup>34</sup>This will be discussed in Chapter Four of this thesis.

<sup>35</sup>See Beaton, J., Miller, R., Boyle, I.T. (eds.) (1998) *Treasures of the College* (Glasgow: Carynx Group), 162-165. See also George Buchanan *Turkey and the Crimea in 1855, Volume I and Volume II*,

duties at the Renkioi Hospital at the Dardenelles.<sup>36</sup> At this point he began the second volume of his diary, which included photographs he took of the hospital at Renkioi.<sup>37</sup>

While there, Buchanan took a couple of photographs to show the outside of the hospital, for inclusion in his diary. The wards of this hospital were similar to the 'sheds' of the Glasgow Royal Infirmary with a partial partition down the centre.<sup>38</sup> Due to illness amongst the military surgeons, Buchanan and Cowan were moved to the General Hospital in the front line at Sebastopol. Here they met up with another Glasgow medical man, Dr George Macleod.<sup>39</sup> Buchanan wrote in his diary 'so here were Cowan, Macleod and I all friends and fellow students, unexpectedly and unknown to each other gathered together at the seat of war'.<sup>40</sup> He and Cowan were kept occupied dressing wounds and assisting with amputations. There they stayed until the end of October 1855, serving just over five months.

Buchanan's diaries formed the basis of his book *Camp Life*, published in 1871. In the Preface of he stated that 'near the Seat of War, at the time of the Crimean campaign, I took daily jottings of all that occurred around me; and, on my return

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Reference RCPSG20/11/10/2-3.

<sup>36</sup>John Black Cowan (1829-1896) was Regius Professor of Materia Medica at the University of Glasgow from 1865 until his resignation in 1880. See, for example 'Obituary, John Black Cowan', *Glasgow Medical Journal*, (1896) 46:192-196. GUABRC hold some of Cowan's correspondence regarding his trip to the Crimea. See for example '1855 letter to Dr Cowan from the Office of the Secretary of War', Ref. 3/9/19, '1855 Instructions to Dr Cowan on arriving at Scutari', 3/1/20.

<sup>37</sup>Volume I contains an account of Buchanan's journey to the Crimea via the Simplon Pass to Brindisi and then by sea to Stamboul. Attached to the inside front cover of Volume I of the diary are two stunning photographic portraits, one of Buchanan in Turkish dress, the other of his colleague John Black Cowan wearing a dark coloured suit.

<sup>38</sup>Beaton *et al.* (1998) *Treasures of the College*, 165.

<sup>39</sup>See Macleod, G.H.B. (1858) *Notes on the Surgery of the War in the Crimea with Remarks on the Treatment of Gunshot Wounds* (London: John Churchill). Other medical men also documented their experiences in the Crimea, see for example Watson, W.N. (1966) 'An Edinburgh Surgeon of the Crimean War: Patrick Heron Watson (1832-1907)', *Medical History*, 10:166-177.

<sup>40</sup>Buchanan, G. (1871) *Camp Life, as seen by a Civilian: A Personal Narrative* (Glasgow: James Maclehose), 62-63.

home, I expanded these into a continuous narrative.’<sup>41</sup> What is striking about Buchanan’s diaries is his meticulous planning, time and effort, which included the taking, processing and printing of photographs.<sup>42</sup> The diaries are reminiscent of a ‘grand tour’, in which photographs were taken to preserve a visual record of aspects of one’s journey.

Although the wet-collodion process did much to further the popularity of photography, many sought to improve the quality of the images themselves. From circa 1852 to 1867 stereographs, or paired three-dimensional photographs became increasingly popular.<sup>43</sup> Sir David Brewster’s stereoscopic viewer was an adaptation of an earlier version of a mirror stereoscope.<sup>44</sup> The stereoscopic effect was created by taking one shot, then the camera was moved slightly to the right or left, before a second was taken. Therefore, the second image would show the same scene from a slightly different angle.<sup>45</sup> The resulting pair of images were usually albumen prints, each measuring 3 x 3 inches which were then mounted side-by-side on a card, 7 x 3.5 inches. When this was looked at through a viewer, a three-dimensional effect or stereograph was achieved.<sup>46</sup>

Those with an interest in medicine also began to apply the technique to their own field. A.J. Macfarlan was one of the first medical men in Scotland to describe the

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<sup>41</sup>Buchanan, *Camp Life*, Preface, pages unnumbered.

<sup>42</sup>Buchanan’s prints were printed on salted or albumen papers, both in use around 1855.

<sup>43</sup>The physician, Dr Oliver Wendell Holmes, designed one of the most simple, popular hand-held viewers.

<sup>44</sup>This was designed by the English physicist, Sir Charles Wheatstone, and first described in 1832. Six years later he gave an address to the Royal Scottish Society of Arts on his form of ‘binocular vision’. Brewster designed a simplified viewing instrument, which he exhibited at the Great Exhibition in the Crystal Palace, London, 1851.

<sup>45</sup>The London Stereoscopic and Photography Company was founded in 1850. George Washington Wilson began mass production in his newly built premises in Aberdeen from 1876. By 1856 a twin-lens camera was made available, thus facilitating the mass production of stereographs or stereo views.

application of stereographs for clinical purposes. Macfarlan stated that ‘the power which the stereoscope gives us of recognising the flat surface in the third dimension of space makes it a most valuable means of obtaining a just idea of the appearance of solid tumour. &c’.<sup>47</sup> He acknowledged the potential role of stereoscopy in medical education, stating that ‘carefully executed stereoscopic photographs of dissections of the principal spaces and triangles of the human body could not fail greatly to aid the student in acquiring a knowledge of anatomy, or in calling to his memory the relative position and depth of parts when he can no longer enjoy the advantage of dissection’.<sup>48</sup> Macfarlan believed in the superiority of stereo-photography over standard medical photographs, and this was the subject of his M.D. thesis.<sup>49</sup>

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<sup>46</sup>For further details on the stereographs <http://www.edinphoto.org.uk> (28.7.02).

<sup>47</sup>Macfarlan, A.J. (1861) ‘On the Application of Photography to the Delineation of Disease: With Remarks on Stereo-Micrography’, *The Photography Journal*, 7: 326-329.

<sup>48</sup>Ibid. 328.

<sup>49</sup>Ibid. See also Macfarlan, A.J. (1861) ‘Photography and the Stereoscope in their Practical Relations to the Subjects of the Medical Curriculum’. His thesis is divided into the following parts: ‘Photography in its Scientific Relations to Chemistry’; ‘The Stereoscope in its Scientific Relations to the Physiognomy of Vision’; ‘Photography and the Stereoscope in their Practical Relations to the Subjects of the Medical Curriculum’, M.D. Thesis, Special Collections, Edinburgh University Library

In 1861 the Viennese surgeon, Theodor Billroth (1829-1894), employed the services of J. Ganz, a professional photographer, to take stereographic photographs of his patients before and after treatment.<sup>50</sup> Ganz's images betray his training in photographic portraiture. Patients suffering from a variety of conditions, including rickets and molluscum fibrosum, were photographed against artistically arranged drapery. In 1867 the stereographs, accompanied by case notes, were published in a book.<sup>51</sup>

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<sup>50</sup>William Macewen was a great admirer of the work of Theodor Billroth, and corresponded with him on carcinoma, RCPSG10, Box 1A.

<sup>51</sup>Billroth, T. (1867) *Stereoskopische Photographien Chirurgischer Kranken* (Erlangen: Enke). In 1894 Albert Neisser in Leipzig published a stereoscopic atlas of surgical procedures, gynaecology and diseases of the skin. See Neisser, A.L.S. (1894-1900) *Stereoskopischer Atlas: Sammlung Photographischer Bilder aus dem Gesamtgebiet der Klinischen Medizin, der Anatomie und der*

## *Joseph Lister and the Stereograph*

In 1860, Joseph Lister (1827-1912) was installed as Professor of Surgery at the University of Glasgow, and surgeon to the Glasgow Royal Infirmary (GRI).<sup>52</sup> Lister was an accomplished artist, who regularly made drawings and paintings of his macro and microscopic observations.<sup>53</sup> He also made a brief foray into photography while in Glasgow. Lister's use of photography is important, as it exemplifies the use of professional studio photographers proficient in the technique of stereoscopy. In addition, one of Lister's medical students was also entrusted to take clinical photographs, which were transposed into engravings for a publication.

'Lister's Papers' are held in the Royal College of Surgeons of England (RCSE). The Papers are accompanied by an inventory of the 'Manuscripts, Documents and Printed Works contained within the Lister Memorial Cabinet'.<sup>54</sup> These items have been organised into a series of folders, each with its own inventory. Under the heading 'Folder 31, Excision of the Wrist for Caries 1863?' there is a list of twenty

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*Pathologischen Anatomie etc.* (Leipzig: Fischer, Barth, & Kassel). See also Waterson, D. (1905) *The Edinburgh Stereoscopic Atlas of Anatomy* (Edinburgh: T.C. & E.C. Jack).

<sup>52</sup>Bynum, W.F. (1994) *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press), 112. Lister's name is synonymous with the development of antiseptic surgery. See, for example, Granshaw, L. (1992) 'Upon this Principle I have based a Practice: The Development and Reception of Antisepsis in Britain, 1867-90', in J.V. Pickstone (ed.) (1992) *Medical Innovations in Historical Perspective* (Macmillan: University of Manchester), 17-46; Lawrence, C. & Dixey, R. (1992) 'Practising on Principle: Joseph Lister and the Germ Theories of Disease' in C. Lawrence (ed.) *Medical Theory, Surgical Practice* (London: Routledge, 1992), 153-215; Gardner, D.L. (2002) *Surgery Comes Clean: The Life and Work of Joseph Lister, 1827-1912*, Catalogue and Exhibition (Edinburgh: Royal College of Surgeons).

<sup>53</sup>Lister was a prolific artist, many of his paintings and drawings are held in the 'Lister Papers' at the Royal College of Surgeons, England. His interest in drawing may have been nurtured by his father Joseph Jackson Lister (1786-1829). It was he who invented the achromatic lens for the microscope; and made drawings of microscopic observations using a camera lucida.

<sup>54</sup>See 'Manuscripts, Documents and Printed Works contained in the Lister Memorial Cabinet', Folder 31 is entitled 'Excision of the Wrist for Caries 1863?' and is accompanied by an index which lists twenty items. The Manuscripts etc are part of the 'Lister's Papers', held at the Royal College of Surgeons of England. The collection includes hundreds of accomplished drawings and sketches by

items. Of the ten photographs listed, two were transposed into engravings for Lister's article entitled 'On Excision of the Wrist', published in *The Lancet* in 1865.<sup>55</sup> His article provides details of some of the cases he encountered in Glasgow between 1862 and 1864.

An engraving, reproduced here on acetate, was labelled 'Figure 4' in Lister's article and is described in the text as showing the anatomy of the back of the hand and as being 'taken from a photograph.'<sup>56</sup> See image number 1, on page 50, represented in this thesis as follows: [1:50]. The photograph listed as 'Item 9' in 'Folder 31' was used by the engraver as the basis for an illustration in Lister's paper. [2:51]

Figure 6 in *The Lancet* accompanies 'Case 8-Mrs C' admitted to the GRI, on:

[A]ccount of spontaneous disease of the carpus of two years standing ... the wrist measured nine inches and three-quarters in circumference ... the surface of the swollen part was studded with sinuses, through which the probe could be passed down to diseased bone in the forearm, the carpus and metacarpus. The hand drooped when the arm was extended, and the fingers were entirely useless.<sup>57</sup>

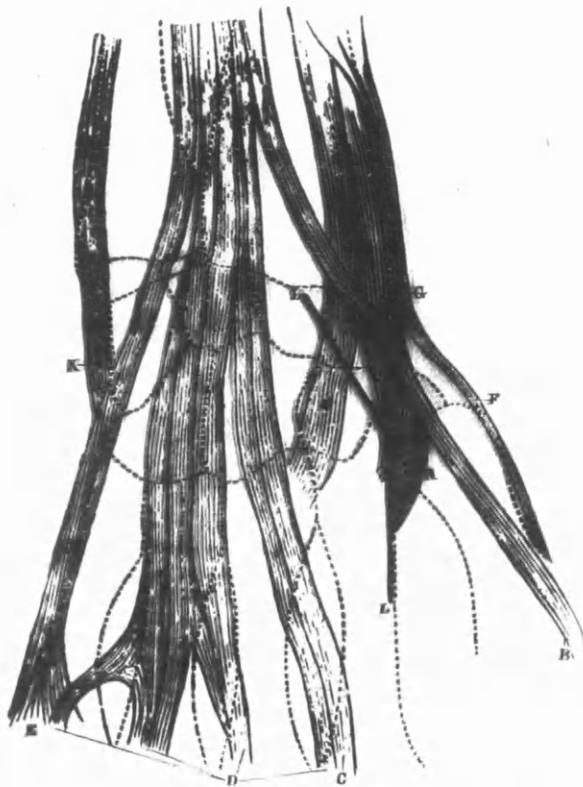
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Lister himself.

<sup>55</sup>See Lister, J. (1865) 'On Excision of the Wrist for Caries', *The Lancet*, I: 308-312, 335-338. Some of these published figures correspond with original items in Lister's papers, RCSE, Folder 31, 'Caries of the Wrist 1863?'

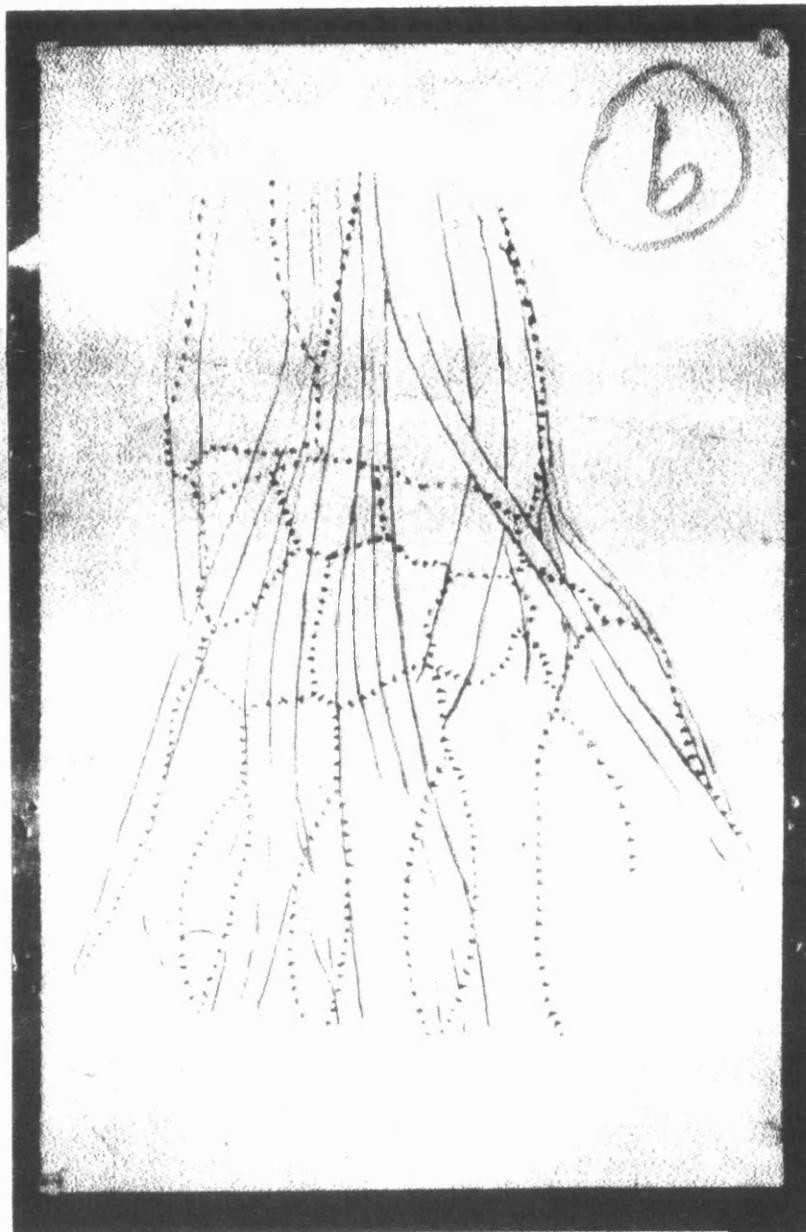
<sup>56</sup>Fig. 4, described as a 'diagram of the anatomy of the back of the hand' see page 336, *The Lancet* corresponds with Item 9, described as 'Photograph untitled similar to item 7.' Item '9' looks like a delicate drawing, but is in fact a photograph of a drawing of the wrist. The drawing was pinned to a board and then photographed, thus one can see the pins in each of the four corners of the print if one looks closely. This figure was also reproduced in Erichsen, J.E. (1872) *The Science and Art of Surgery: Being a Treatise on Surgical Injuries, Diseases, and Operations, Volume II* (London: Longman's, Green & Co.), 216.

<sup>57</sup>Lister, 'On Excision of the Wrist', 335-336. 'Fig. 6, taken from a photograph' on page 362, corresponds with 'Item 15' described as a 'Photograph of a swollen wrist.'



A, radial artery. n, tendon of extensor secundi internodii pollicis.  
 c, indicator. d, extensor communis digitorum. g, extensor  
 minimi digiti. v, extensor primi internodii pollicis. u, ex-  
 tensor ossis metacarpi pollicis. u, extensor carpi radialis  
 longior. r, extensor carpi radialis brevior. k, extensor carpi  
 ulnaris. L L, line of the radial incision.

1



2

The account goes on to record ‘some idea of the appearance of the wrist may be gathered from the accompanying illustration (Fig. 6), taken from a photograph’.<sup>58</sup>[3:53] The original print is accompanied by an annotation on the border that reads: ‘Photograph of swollen wrist June 1864 by O.D. Marriott.’ [4:54] thus implying Marriott, one of Lister’s medical students at the GRI, was the photographer.<sup>59</sup> The patient’s hand was photographed while supported on a horizontal metal pole. However these details were ‘edited’ out of the engraving, which again is reproduced on a smaller scale than that of the original print. Marriott took a second photograph also in June 1864, showing the outer aspects of the patient’s arm resting on a table.<sup>60</sup>[5:55] Both photographs were taken before surgery.

Further details of the case may be found in the GRI Ward Day Book for 1864-1865. On 4<sup>th</sup> May 1864, Mrs C., was admitted with an abscess on right wrist joint of two years duration. The entry records:

About 8 months [ago] abscess opened on the ulnar side of the wrist, near styloid process ... [T]he wrist is very much swollen. Measures 9 inches and 3¼ inches in circumference, presents the appearance of an oval tumour 4 inches in length ... when the arm is held with the ulnar border lowest the fingers and thumb droop. The tumour itself curving downwards. She cannot use her fingers for any useful purpose they hang useless from the tumour. She has not the power of pronation or supination.<sup>61</sup>

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<sup>58</sup>Lister, ‘On Excision of the Wrist’, 362.

<sup>59</sup>Osborne Delano Marriott, M.B., C.M., 1865, M.D., 1880, was from Sevenoaks, Kent. See *A Roll of the Graduates of the University of Glasgow from 31st December 1727- 31st December 1897* (Glasgow: James Maclehose & Sons, 1898), 420.

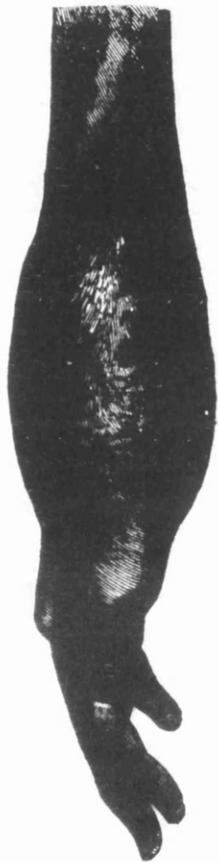
<sup>60</sup>See ‘Manuscripts, Documents and Printed Works contained in the Lister Memorial Cabinet’, ‘Folder 31’, RCSE. ‘Item 14’ is described as a ‘Photograph of swollen wrist June 1864 by O.D. Marriott.’

<sup>61</sup>GRI Ward Day Book, Ward XXV, page 46, HB14/5/18.

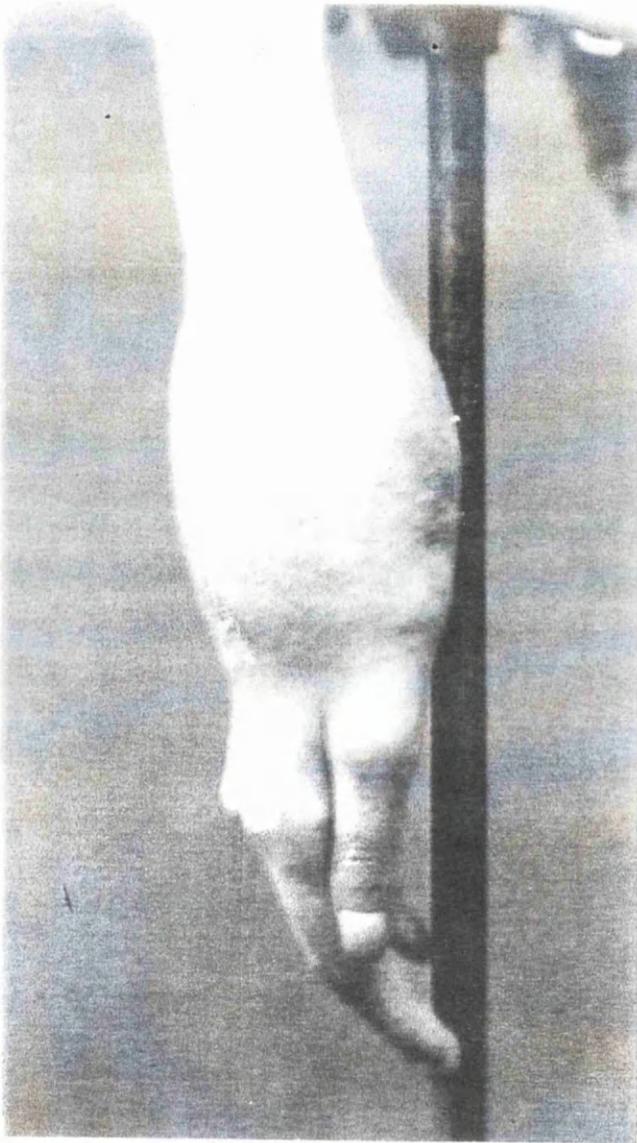
CASE 8. Mrs. C., aged twenty-five, a married woman, came to the infirmary for the purpose of having her right hand amputated, on account of spontaneous disease of the carpus of two years' standing, attended for eighteen months with constant discharge, and for the last six months with such severe pain as to deprive her to a great extent of her nights' rest, while the effect upon her general health was marked by her wasted and sallow aspect, impaired appetite, and rapid pulse.

Some idea of the appearance of the wrist may be gathered from the accompanying illustration (Fig. 6), taken from a photograph, and also from the fact that the wrist measured nine inches and three-quarters in circumference, whereas the sound one was slender both from natural conformation and from emaciation.

FIG. 6.

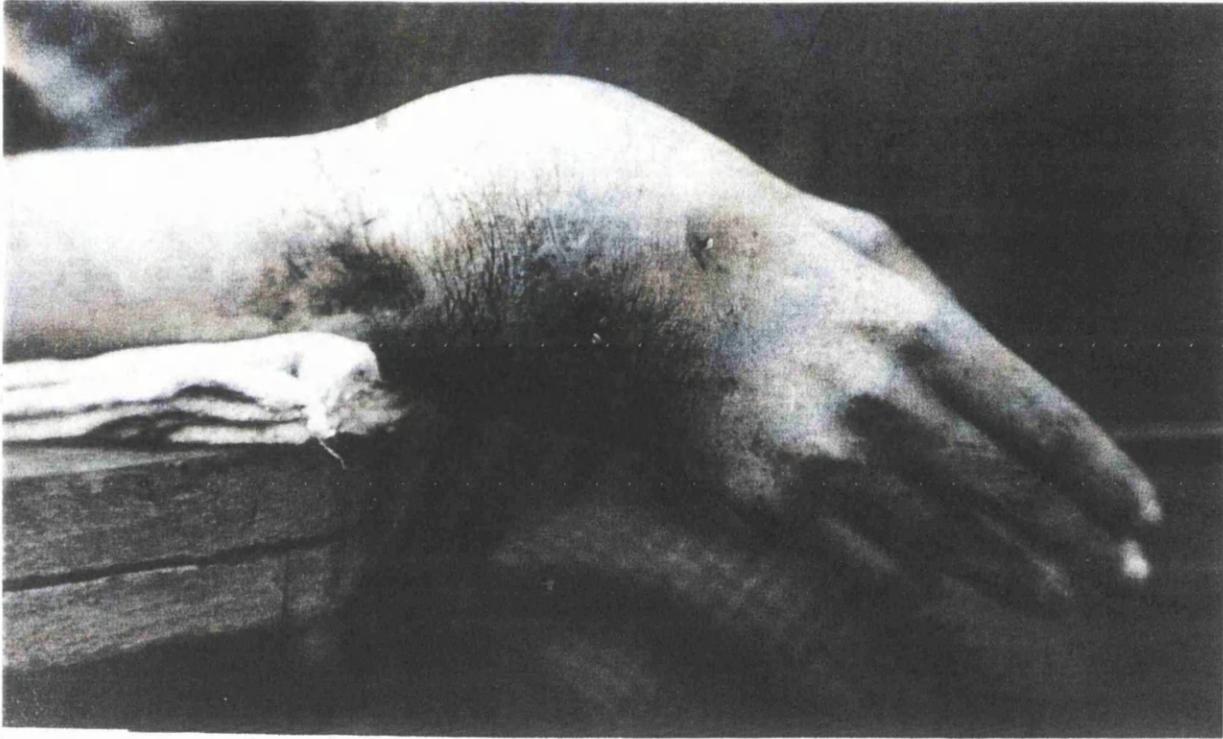


3



June 1964 by J. D. ...

4



*June 1804 by O. D. Marriot*

5

On the palmar aspect of the wrist there are two sinuses, one over [word indecipherable] of ulnar; into which the probe can be passed one inch and a half reaching carious bone at one inch from the skin; the other is about an inch and  $\frac{3}{4}$  nearer the fingers, the probe passes to diseased bones evidently the trapezium on the ulnar border – there are three sinuses.<sup>62</sup>

The journal entry goes on to record that on the ‘8<sup>th</sup> June Professor Lister excised the bones of the carpus; ends of the metacarpal bones also carpal extremities of radius and ulnar’. Thus, Marriott’s photographs were taken some time between 1<sup>st</sup> and 8<sup>th</sup> June 1864, when the operation was performed, probably at the GRI. By the 21<sup>st</sup> June:

[T]he circumference of the arm [measured?] three inches and a half from the tip of the olecranon. 23<sup>rd</sup> June health improved. July 13 sores healing kindly, considerable motion in thumb and fingers, hand droops but little when the forearm is raised. July 22 The hand when the arm is horizontal droops only to a very short degree.<sup>63</sup>

The narrative is continued in *The Lancet*. It records that ‘for seven weeks all went on perfectly well, so that at the end of that time the circumference of the wrist was diminished by an inch ... unfortunately the sores were attacked by hospital gangrene.’<sup>64</sup> Nitric acid was applied along with ‘other measures’ but after a month there was still no improvement in her condition. Therefore Lister decided on an exploratory operation, during which he discovered that the ‘ulna was again carious’. This was removed by pliers, the wound was stitched, ‘except part for the escape of discharges, and the limb was placed in a splint’.<sup>65</sup> The patient made a good recovery and visited Lister in December 1864:

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<sup>62</sup>Ibid. 51.

<sup>63</sup>Ibid. 54.

<sup>64</sup>Ibid.

<sup>65</sup>Ibid. Brief details of this case were included in the GRI Ward Day Book (1864-1865), pages 54, 71, 99, 148-149, HB14/5/18.

[T]he discharge had almost entirely ceased, the swelling was greatly reduced, and although the end of the radius was still very large, and the wrist measured eight inches and a quarter in circumference, the border of the bone was to be felt immediately beneath the integument of normal thickness and consistence, and the hand had a thoroughly natural appearance. She could extend it unsupported without any droop, and even raise it above the level of the forearm by muscular effort.<sup>66</sup>

During Mrs C.'s, return visit to Lister in 1864, at least two stereographs were taken to show her progress.<sup>67</sup>[6:58; 7:58] Two prints were taken from slightly different angles to show the patient's wrist pronate, then supinate. There is no evidence to suggest that these were the work of Marriott. The stereographs may have been taken by a local professional studio photographer, although where this took place is unclear.<sup>68</sup> At least one regular photograph was taken of the same scene, with the palm upwards.<sup>69</sup>[8:59]

In the background of these photographs one can see the face of the patient. She is wearing a bonnet, sitting whilst her right arm held by another's hand in the foreground.<sup>70</sup>

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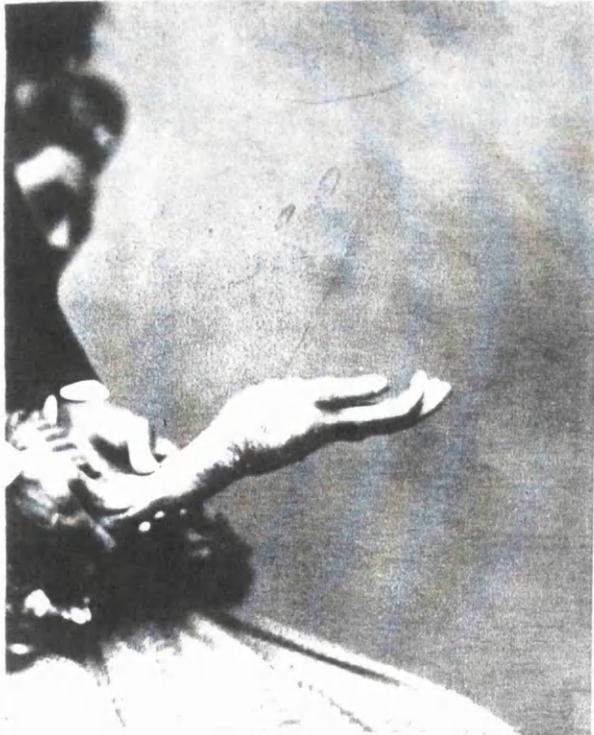
<sup>66</sup>Lister, 'On Excision of the Wrist', 362.

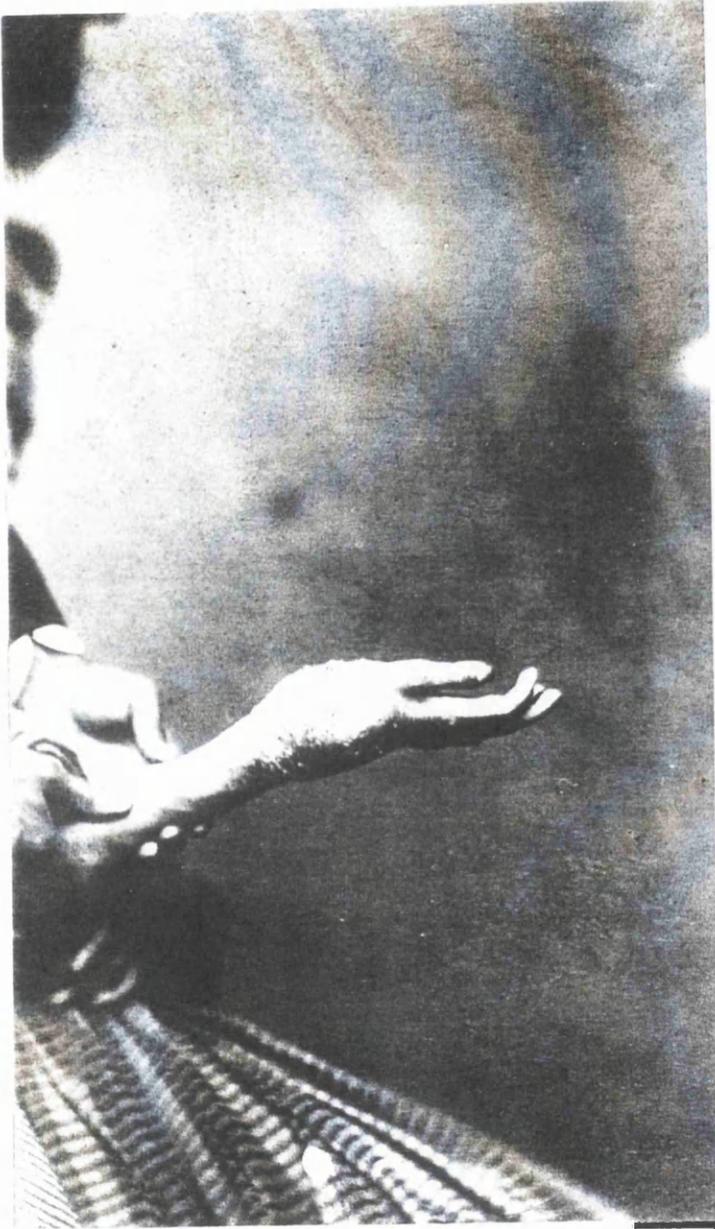
<sup>67</sup>Items, 12 and 13, Folder 31, Lister papers, are sepia coloured stereographs.

<sup>68</sup>However, I have been unable to find any reference to stereographic studios in the *Glasgow Post Office Directories* for this period.

<sup>69</sup>Item 11, Folder 31, Lister Papers.

<sup>70</sup>See File 31, Item 11. Items 12 and 13 are stereographs, and may albumen prints. The paired photographs were mounted on yellow card. This particular colour was common in the early 1860s. See





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The ‘other hands’, which may be Lister’s, are bordered by dark coat and demonstrate visually that the bone was ‘of normal thickness and consistence’; that she could ‘extend it without any droop’; and ‘raise it to the level of the forearm’.<sup>71</sup> The photographs were taken using a shallow depth of field; thus, the patient’s face is in soft focus, in contrast to the sharply focused and centred hands in the foreground. Creating such a visual distance between the patient’s face in the background and the hands in the foreground was a technique commonly used to ensure a successful stereoscopic image. During the early 1860s, however, the technique had made a big impact in mainstream photography.<sup>72</sup> Lister’s stereographs, which demonstrated the success of his treatment, must have served a research function, as the stereograph could only be seen by one viewer at a time.<sup>73</sup>

Why Lister choose to photograph this case is perhaps hinted at by his biographer, Rickman J. Godlee, who stated that ‘the excision of joints that is, the removal of the ends of the bones entering into an articulation instead of ruthlessly amputating the diseased or injured limb was a comparatively recent development of conservative surgery’.<sup>74</sup> Lister’s method differed from his contemporaries, in that it ‘may involve the complete removal of all parts in which the disease was likely to recur’.<sup>75</sup>

Lister’s venture into stereoscopy may have been an isolated event, but he made other forays into photography.<sup>76</sup> In 1880, the Editor of *Photographic News* described

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Welling, W. (1976) *Collectors Guide to Nineteenth-Century Photography and Photographs* (London: Collier Macmillan), 53.

<sup>71</sup>Lister, ‘Excision of the Wrist’, 362.

<sup>72</sup>See for example Darrah, W.C. (1977) *The World of Stereographs* (Gettysburg: Darrah).

<sup>73</sup>See for example <http://www.rleggat.com/photohistory/htm> (20.1.01).

<sup>74</sup>Godlee, R. J. (1917) *Lord Lister* (London: Macmillan & Co.), 117.

<sup>75</sup>Ibid. 118

<sup>76</sup>Lister also collected clinical photographs. In Folder 3 of the Lister Papers held at the RCSE, Item 88 is described as an undated photograph of an ‘Old woman with deformed face’; Items 91 a & b as

his visit to Joseph Lister, at King's College Hospital, to see photographs of bacteria.<sup>77</sup>

The author described Lister's theory of antiseptis, and noted that, although surgeons had adopted his treatment, 'not all of them adopt his theory regarding air-borne bacteria'.<sup>78</sup> Much of this scepticism was due to the fact that the bacteria which Lister had described, could not be seen with the naked eye. Lister was fortunate to receive assistance from:

A staunch friend has now turned up in most timely fashion, and this is the micro-camera. Its evidence is likely to afford convincing proof of the soundness of Mr. Lister's theory and practice ... A colleague in Germany, Dr. Koch has succeeded in taking photographs of bacteria in animal tissue, and this series of pictures Mr. Lister was good enough to show us the other day.<sup>79</sup>

Koch's research had shown something, which had previously remained invisible, namely the bacteria present in animal tissue. He had found that 'by taking pictures of the tiny organisms, that their shape and form varied with the nature of the disease ... thus he discovered the bacteria responsible for gangrene'.<sup>80</sup> The Editor concluded that, as the bacteria were not visible under the microscope, 'to photography alone is due their discovery'.<sup>81</sup> Therefore in both Lister's and Koch's case seeing was, in fact, believing. Preserving a record of what had been seen was vitally important to the acceptance of their theories. Joseph Lister's forays into photography and stereography may, however, have been intermittent. His decision to use the stereograph for clinical

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'Photographs by Bendorme Baltimore, African, growths on ear', and dated 5th October 1876.

<sup>77</sup>Editorial (1880) 'With Professor Lister, F.R.S., of King's College Hospital - Photographs of Bacteria', *The Photographic News*, 15: 409-410.

<sup>78</sup>Ibid. 410.

<sup>79</sup>Ibid. These photographs of animal bacteria were in fact transparencies 'capable of being thrown up on a screen at a lecture or for instructional purposes', 410. Circa 1882 there was an apparent 'revival of interest in the idea of a new form of projection microscope', see Mason, R. (1894) 'The Projection of Microscopic Objects on the Lantern Screen', *The Photographic News*, 3: 476.

<sup>80</sup>Editorial (1882) 'What Photography Does for Science', *The Photographic News*, 26: 100-101.

<sup>81</sup>Ibid. 101.

purposes in 1864 occurred at a time when the technique had hit a high point in its popularity.

### ***The Carte-de-visite and Cabinet Card***

The *carte-de-visite* was another popular photographic technique to be adopted for clinical purposes.<sup>82</sup> The *carte* remained popular from its introduction in 1858 until the early twentieth century. The 'typical *carte-de-visite* portrait is a head-and-shoulders or full-length pose 2¼ x 3¾ inches mounted on a card 2½ x 4 inches'.<sup>83</sup> These small albumen silver prints pasted on to a card were 'cheap for photographers to mass produce and inexpensive for consumers to collect'.<sup>84</sup> The images were taken through multi-lens cameras, which enabled 'four or eight exposures to be taken at one time on a single glass negative plate'.<sup>85</sup> From this 'a contact print could be made with four or eight similar photographs on a single sheet of photographic paper'.<sup>86</sup> The ease with which multiple images could be taken and disseminated meant that within a short time span the *carte-de-visite* became immensely popular, a craze known as 'cartomania'.

On 19th February 1863, the Glasgow Photographic Association was founded, and to mark the occasion an exhibition was held in the Merchant's Hall, Glasgow.<sup>87</sup> The

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<sup>82</sup>The *carte-de-visite* was patented by A.A.E. Disderi in 1854. Photographs were mounted on cards measuring 11.4 x 6.4 centimeters.

<sup>83</sup>Welling, W. (1976) *Collector's Guide to Nineteenth Century Photographs*, 57.

<sup>84</sup>See Ryan, J. (2001) 'Images and Impressions: Printing, Reproduction and Photography', in J.M. MacKenzie (ed.) (2001) *The Victorian Vision: Inventing a New Britain* (London: V. & A. Publications), 215-241.

<sup>85</sup>Welling, W. (1976), 57.

<sup>86</sup>Ibid.

<sup>87</sup>See Lang, W. (1889) *Fifty Years of Photography* (Glasgow Photographic Association: Printed at

hall was decorated with a selection of photographs by artists from England and Scotland. The meeting was presided over by Professor Allen Thomson, M.D., Professor of Anatomy at the University of Glasgow, and was recorded in the local press.<sup>88</sup> Thomson stated that the founding of the Association represented one of the:

"Wonders of the Age, Photography" It was an art as remarkable for its rapid rise and progress as for the deep scientific and subtle principles on which it is based. It had arisen, not only in our time, but almost under the eyes of the youngest amongst us. But a few years since it was the latest marvel of science, and now it was practiced everywhere.<sup>89</sup>

Thomson may have been referring to the increasing popularity of photographic portraiture, which had been facilitated by the introduction of the *carte-de-visite*.

The *carte-de-visite* was also destined to serve as a form of clinical currency. Medical men were quick to recognise that the *carte* was not only cheap, but that the multiple copies could be exchanged amongst those with a general interest or for diagnostic purposes. The Glasgow surgeon, William Macewen, collected clinical *cartes-de-visite* from medical colleagues while on numerous trips. For example, in 1884 while on a trip to St Petersburg, Macewen acquired two professional studio *cartes* perhaps from a colleague, of a young girl: one taken before and after treatment for a cleft palate.<sup>90</sup> [9:65]

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Request of the Association). See also Paton, J. (1886) *Catalogue of the Glasgow Photographic Exhibition* (Glasgow: Robert Anderson). For further general literature on photography exhibitions in Glasgow, see the *International Photographic Exhibition, Under the Auspices of the Glasgow and West of Scotland Amateur Photographic Association September 1891* (Glasgow: David J. Clark, 1891).

<sup>88</sup>Allen Thomson was Professor of Anatomy at the University of Glasgow from 1848-1877. He taught Macewen when a medical student. Macewen admired Thomson's informal teaching methods. See Bowman, A.K. (1942) *The Life and Teaching of Sir William Macewen: A Chapter in the History of Surgery* (London: William Hodge & Co.), 7.

<sup>89</sup>:Glasgow Photographic Association Papers', Ref., 'Manuscripts, 250', Mitchell Library, Glasgow.

<sup>90</sup>RCPSG10/7/9/1, the original print measures 10.6 x 6.2 centimeters. Similarly while on a trip to Dublin, he acquired a *carte* showing a brain taken by the 'MacGill' photographic studio,

Plainer forms of *carte* were also taken of Macewen's patients. In 1883, A.M. was admitted to the RHSC suffering from Talipes Varus.<sup>91</sup> Soon afterwards Macewen excised her astragalus on both sides, then external splints were applied. Following her recovery she was photographed in late 1883, or early 1884 in the operating theatre of the GRI, as denoted by the distinctive wooden panels in the top right hand corner of the print. [10:66]

By the 1890s the *carte-de-visite* was subsequently succeeded in popularity by the larger format Cabinet card. The Cabinet card was created by the Scottish photographer, George Washington Wilson (1823-1893) during the 1860s and remained popular until the twentieth century.<sup>92</sup> Cabinet card prints measured 3¾ x 5½ inches, and were mounted individually on a card 4¼ x 6½ inches. According to William Welling, 'the cabinet card brought with it a new appreciation for style in posing, improved lighting, and the use of background objects or scenery to add flair to the photograph'.<sup>93</sup> Some medical men, such as the Glasgow surgeon Alexander Patterson, preferred their patients and specimens to be photographed by local studio photographers, and the resulting images were produced in the form of cabinet cards. Patterson's cabinet cards will be discussed in further detail in Chapter Six, Section III.

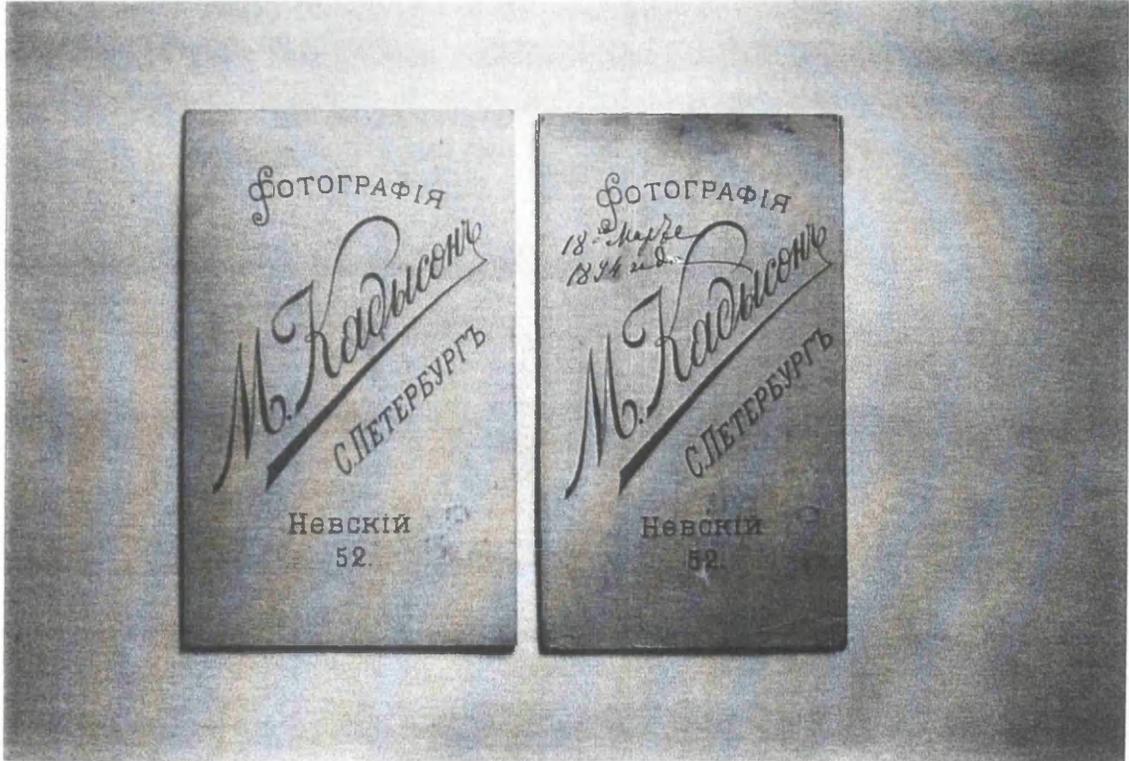
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RCPSG10/9/11.

<sup>91</sup>RHSC Ward 1, YH7/2/1, 294. The photograph is held in the Macewen Papers, RCPSG10/7/9/12. As we shall see in Chapter Five, many of the photographs that featured in Macewen's PJS were printed on pre-cut papers, which were also the same size as those used for the *carte*.

<sup>92</sup>See Taylor, R. (1981) *George Washington Wilson: Artist and Photographer 1823-1923* (Aberdeen: Aberdeen University Press).

<sup>93</sup>Welling, 55-65.





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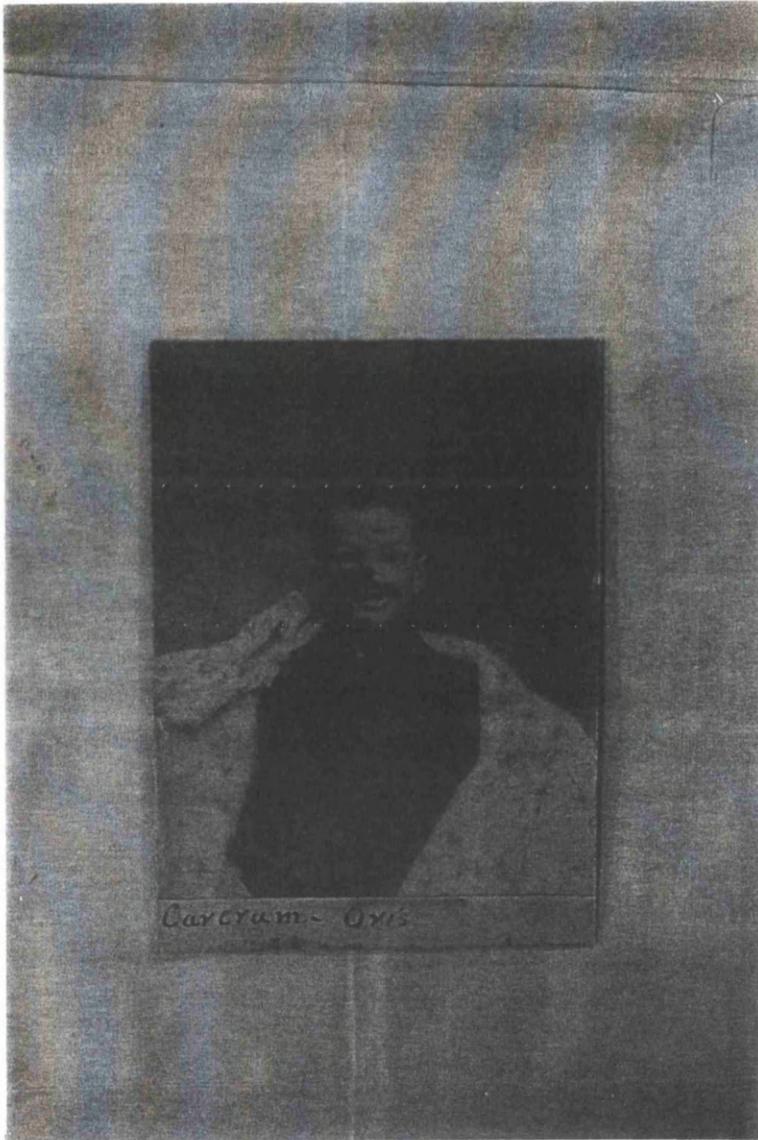
Some of Macewen's photographs may have originally been cabinet cards. There are a couple of examples in which the photograph has been removed from its mount that may have originally borne the studio logo. The photographs have then been remounted on a plain board, and where the logo would have been is now a handwritten legend.<sup>94</sup>[11:68]

### *Conclusion*

This account has so far described some of the major technological developments in photography and their impact in Glasgow. I have demonstrated that popular techniques including the stereograph, *carte-de-visite* and cabinet card were utilised by Lister and Macewen for clinical purposes. At least some of these images were the work of professional studio photographers. In some instances this would have required the patient to visit the photographic studio, as the examples collected by Macewen in St Petersburg showed. It seems likely that the physician or surgeon would be involved in directing the photographer in terms of the composition of the image. In contrast, Lister's patient was most likely photographed within the GRI by

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<sup>94</sup>DC79/182. Contains two items that appear like cabinet cards. One is labelled 'Hydroma of the back' and the other is 'Cancrum Oris', shown here. The latter is a 'gangrenous ulcer about the



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his medical student, Marriott. The work of medical students, House Surgeons and Resident Assistants was integral to the spread of photographic knowledge and practice within the hospital. This, coupled with advances in printing technology and the advent of the dry-plate furthered the dissemination of photographs into a variety of contexts, such as M.D. theses and medical periodicals.<sup>95</sup>

During the early 1870s the wet-collodion had been superseded by the introduction of the gelatine dry-plate, invented by an English physician, Dr Richard Leach Maddox (1816-1902).<sup>96</sup> Maddox's method involved painting the sensitising chemical on a glass plate, and then coating it in a gelatine emulsion. By the end of the decade the first gelatine dry-plates were available on the market. The dry-plate process revolutionised photography: firstly portable darkrooms were no longer necessary. Moreover, the plates were more sensitive to light, making faster shutter speeds possible. The production methods used to create dry-plates led to a standardisation and a reliable image quality. Increasingly, photography became simpler, cheaper and more accessible to medical men.

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<sup>95</sup>Aspects of this process will be discussed in the following chapter.

<sup>96</sup>Maddox searched for an alternative to wet-collodion, as the vapours from it aggravated his chest complaint. For further details see <http://www.rleggat.com/photohistory/history/maddox.htm> (02.03.02).

### **Chapter Three: Clinical Photography in the Glasgow Medical Journal during the late Nineteenth-Century**

This chapter begins by sketching an outline of the discourse surrounding clinical photography in the medical and photographic periodicals during the mid-to-late nineteenth century. The *British Medical Journal (BMJ)*, *The Lancet*, *Photographic News* and *The Journal of the Photographic Society* were amongst those periodicals that acknowledged the importance of clinical photography. This overview provides a context for understanding the character and role of clinical photography in the *Glasgow Medical Journal (GMJ)* during this period. The first clinical photographs were published in the *GMJ* during the late 1870s. The first images were often in the form of *cartes-de-visite* and were taken by local professional studio photographers. Over the next couple of decades, physicians, surgeons and medical students, many local to Glasgow, began to take clinical photographs for inclusion in the *GMJ*. This was due in part to advances in photography, perhaps most notably with the introduction of the gelatine dry-plate during the 1870s and 1880s. These images are important because they attest to the greater dissemination of clinical photographs, not only in the *GMJ*, but also M.D. theses, case notes and teaching collections.

#### **Overview**

During the mid-to-late nineteenth century, *Photographic News*, *The Journal of the Photographic Society*, *Photographic Work* and *The Photographic Review of Reviews*

were amongst the most popular photographic periodicals, catering for professional and amateurs alike.<sup>1</sup> Likewise, clinical photography was also discussed on a regular basis in *The Lancet* and the *BMJ*. The literature on clinical photography within both groups of periodicals championed the accuracy of the medium over other visual media; imparted technical advice; and furthered the practical application of photography in the hospital and the classroom.

Articles relating to clinical photography appeared in the photography journals from the 1850s onwards.<sup>2</sup> From the outset, photography was synonymous with accuracy. *The Photographic Journal* for 1859 noted that, in some of the Parisian hospitals, photography had been:

[A]dopted to preserve a record of cases of disease and distortion which present any interest to the physician or the surgeon, and to furnish representations of dissections more accurate and useful to the student than the most highly-finished drawings.<sup>3</sup>

The theme of accuracy was recounted in the *BMJ* and *The Lancet*. In January 1859, in an article entitled 'Photography in Medical Science', the Editor of *The Lancet* stated that:

Photography is so essentially the Art of Truth — and the representative of Truth in Art — that it would seem to be the essential means of reproducing all forms and structures of which science seeks for the delineation ... We were, therefore, surprised, in passing through the rooms of the Photographic Society lately, to find so few photographs which had any bearing of what kind soever upon surgery, medicine, and the allied sciences. It is to be much regretted that the great

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<sup>1</sup>*Photographic News* was founded in September, 1858 and ran until 1908. In 1884 however, it merged with *Amateur Photography*, thus forming *Amateur Photographer*, which in turn became *Photographic News*. *The Journal of the Photographic Society* was founded in 1853, from 1859 it became known as *The Photographic Journal*.

<sup>2</sup>Editorial (1856) 'On Photography as Applied to the Phenomena of Insanity', *Journal of the Photographic Society*, 44: 88-89.

<sup>3</sup>Editorial (1859) Untitled, *The Photographic Journal*, 5: 122.

resources of the photographic art — seen here in a hundred beautiful forms — have not yet been more fully applied to the purposes of our art.<sup>4</sup>

Increasingly, however, in the *BMJ* and *The Lancet*, the accuracy of the medium was synonymous with diagnostic potential. In the *BMJ* in 1856, R.W. Coe recorded showing a series of photographic prints of a family, supposedly suffering from congenital curvature of the legs, to an audience of medical men. There is no mention of whether the images were projected on a screen, or the prints were handed round the audience. Nevertheless, after looking at these images, the audience's consensus was that the family were in fact suffering from rickets.<sup>5</sup>

Similarly, in an article entitled 'Photographic Surgery', published in *The Lancet* in 1867, the Editor provides an account of a case recorded in the French press where:

A gentleman who had married a young and handsome lady, of whom he was extremely jealous, was obliged to apply to a surgical celebrity of Paris on account of a boil which caused the lady great agony, and was situated about the cardiac region. To allow of an inspection was out of the question, and nothing could induce the husband to sanction it. The surgeon declined prescribing blindfold; but the difficulty was overcome by the gentleman's skill in photography and tinting. He presented to the doctor the exact facsimile of the affected part, was told what course to pursue, and to report progress in a few days. This was done very punctually, and a second photograph presented. After three or four visits of this kind the wife was well, and the husband much pleased with the success of his contrivance.<sup>6</sup>

Not only was photography accurate, and had diagnostic value, but it could also have a predictive eye. In 1875, Dr Ultzman delivered a paper on 'The Uses of Photography in Medical Studies', to an audience at the University of Vienna.<sup>7</sup>

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<sup>4</sup>Editorial (1859) 'Photography in Medical Science', *The Lancet*, I: 89.

<sup>5</sup>Coe, R.W. (1856) 'Photographs Illustrating Congenital Curvature of the Legs in Members of the same Family', *British Medical Journal*, I: 860.

<sup>6</sup>Editorial (1867) 'Photographic Surgery', *The Lancet*, II:146.

<sup>7</sup>Ultzman, R. (1875) 'On the Uses of Photography in Medical Studies', *The Lancet*, II: 187.

Utzman claimed that these photographs had recorded, if not predicted, a case of smallpox, before it could be seen with the human eye, as an:

[E]ruption of smallpox had been made evident by photography twenty-four hours before it actually came out. Although no one could as yet observe anything on the skin of the patient the negative plate showed stains on the face which perfectly resembled the variolas exanthem and 24 hours afterwards the eruption became clearly evident.<sup>8</sup>

Perhaps this case may have been a 'happy accident', achieved by the lighting conditions. It is unlikely to have been the photographer's deliberate intention.

Technical information and advice dominated many of the articles in the popular photography journals. In 1867 Henry Wright, stated that:

As regards the taking of photographs representing diseased conditions, or natural deformities, it is evident that the first duty of a photographer is to ascertain precisely what points it is most important to represent, and secondly to consider how far it is necessary to retain a tolerably accurate relation between that and other parts. Thus, for example, in one of the stereoscopes placed on the table, where a dwarf is represented, a hat and a chair are carefully introduced for admeasurement; in all others where abdominal tumours are shown, the face is especially thrown out of focus ... as a rule, diseased conditions bear long exposure, the necessity for rest having conferred an aptitude for that local stillness which the photographer requires. When an open wound or sore has to be shown, it is advisable that the surface be constantly kept moist. Where outline is important, all artistic ideas must give way, and the back-ground be so black as to ensure a rigid line of light ... In all cases it is essential that the part to be represented should be kept warm until the moment of exposure; here ordinary blankets are invaluable, both on account of their comfort to the sitter and of the subdued tint produced by the yellowness of colour and roughness of texture.<sup>9</sup>

Wright advised photographers of medical subjects not to take shots that were too close-up to the pathological lesion, but to include anatomical landmarks on the patient's body as an aid to orientation. Props such as blankets and tables, although

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<sup>8</sup>Ibid. 87.

<sup>9</sup>Wright, H. (1867) 'Address on the Medical Uses of Photography', *The Photographic Journal*, 11: 204.

practical, could be used to introduce an artistic element into photograph. Wright was, arguably, promoting a standardised approach to clinical photography. Perhaps he hoped this would eventually lead to the creation, acceptance and adoption of ‘clinical conventions’, even though many were still keen to exercise their own individual photographic preferences.

In the United States too, medical men were quick to see the advantages in publishing clinical cases.<sup>10</sup> F. Maury and L. Duhring took this idea further by publishing the *Photographic Review of Medicine and Surgery*, which they described as a ‘bi-monthly illustration of interesting cases accompanied by notes’.<sup>11</sup> In the preface the editors state that:

The object of the publication has been to bring together some of the rare and interesting examples of disease occurring in our country, with a view of ultimately forming a valuable collection of photographs and records. The superiority of photography to other means for the portrayal of morbid structure is too well known to require comment; while for the success which our undertaking has attained, the present volume must answer for itself.<sup>12</sup>

The authors go on to state that they chose the ‘most striking and remarkable from the cases offered, especially those whose interesting points would admit of clear representation’.<sup>13</sup> Eminent surgeons of the day contributed cases and photographs to the journal, including Samuel D. Gross and Lewis A. Sayre.<sup>14</sup> The case notes include

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<sup>10</sup>Editorial (1865) ‘Photographic Aids in Clinical Records’, *The Lancet*, II: 755.

<sup>11</sup>See F. Maury & L. Duhring (eds.) (1870-1871) *Photographic Review of Medicine and Surgery 1870-1871*, I (Philadelphia: J.B. Lippincott & Co.). Only two volumes of the Journal were published, the second appeared in 1872.

<sup>12</sup>Maury & Duhring (1870) *Photographic Review of Medicine and Surgery*, 1: 71-73.

<sup>13</sup>Ibid.

<sup>14</sup>Sayre, L.A. (1877) *Spinal Disease and Spinal Curvature: Their Treatment by Suspension and the Use of Plaster of Paris Bandage* (London: Smith, Elder & Co.). According to Ira M. Rutkow, Sayre’s book, with its 21 albumen prints was a landmark in American medical photography since it was the first known full-length surgical text to contain actual mounted photographs. See Rutkow, I. M. (2001) ‘Lewis Albert Sayre and the Suspension Treatment of Spinal Disease’, *Archives of Surgery*, 1:1.

the patient's history, treatment and the results of microscopic and pathological examinations. It was the Editor's intention to report only 'interesting, striking and remarkable stand-alone cases' rather than to curate a comprehensive collection which would serve a comparative function. It is apparent that many patients were photographed in professional studios, as one can see props and backdrops that were used in traditional portraiture. Thus, the reporting of each case, and the conventions used in the photographs vary.

In 1891 the ethics of photographing patients was addressed in *The Photographic Review of Reviews*.<sup>15</sup> O.G. Mason, a Canadian medical photographer, stated in reply to the question of whether the patients objected to being photographed:

Oh, yes, but not as frequently as one might think. It is curious, but I have often noted the phase of human nature which causes the average man or woman to take pleasure in being photographed under almost any circumstances. I have seen women pose before my camera with the air of professional beauties. Of course many of the patients are beyond feeling in the matter one way or another. Those who are about to undergo operations which they realise may be fatal, or who are at the point of death, as I often take them, naturally pay very little attention to me and my work, except that in the former case it seems to impress them strongly with the gravity of the situation, and thus enhances their fears.<sup>16</sup>

He then differentiated between surgical and popular photography. According to Mason:

[T]he ordinary photographer, as a rule, takes only the head and bust, or the whole figure. I photograph these and also the most minute sections of the human body, the pictures of which must be enlarged ... One has to be a bit of a doctor in this work ... [T]he surgeons do not always explain just what they want brought out in a picture. I have to know that.<sup>17</sup>

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<sup>15</sup>Editorial (1891) 'The Camera in Surgery', *The Photographic Review of Reviews*, 3: 122.

<sup>16</sup>Ibid.

<sup>17</sup>Ibid.

The ethics of photographing patients was also discussed in *The Lancet* in 1895:

At a recent meeting of the guardians of St. George's-in-the-East the Rev. L.S. Wainwright complained that the medical officer of the infirmary had photographed a female patient of weak intellect in a nude state, and that thereby the friends of the patient were much incensed. The medical officer explained: (1) that he took the photograph in the interests of science, the woman having a peculiar malformation; (2) that the patient was not mentally deficient; and (3) that she was suitably attired and the matron or a nurse was present. A resolution was then passed to the effect that the medical officer should be instructed not to photograph any person thought to be of weak intellect without obtaining the consent of the board.<sup>18</sup>

The Editor concluded that there appeared to have been a fuss about nothing, stating that 'no photograph of any patient should ever be published without the consent of the patient or the patient's representative; but we fail to see why a photograph should not be taken.'<sup>19</sup>

### ***Clinical Photographs in the British Medical Journal and The Lancet***

From the outset of publication, line drawings, woodcuts and engravings were a regular feature of the *BMJ* and *The Lancet*. The first copy of a photograph, described as a 'special plate', appeared in the *BMJ* in 1889. The year after, *The Lancet* followed suit. The apparent lateness in date may, in part, be explained by the high costs of reproducing photographs. As Lister's example demonstrated in the previous chapter, even though photographs were available, they were transposed into engravings for publication purposes. Although the presence of these 'early' photographs was

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<sup>18</sup>Editorial (1895) 'The Photographing of Patients', *The Lancet*, II: 110.

<sup>19</sup>*Ibid.*

announced beneath the title of the accompanying article, they rarely appear as single page plates. They were, perhaps for the sake of economy, distributed amongst the text and juxtaposed to other forms of visual media including drawings and engravings.

As in the *GMJ*, some of the first photographs to appear in the *BMJ* and *The Lancet* were the work of professional photographers. For example in 1902, Dr Rankin's article on 'Friedrich's Ataxia', appeared in *The Lancet*, accompanied by photographs of three female patients, naked from above the waist, plus cropped shots were taken to show the condition of the feet.<sup>20</sup> The patients were all photographed in the same luxurious surroundings, with patterned carpets and furniture in the background.

Reports of extreme and unusual cases were often accompanied by photographs. For example, in the *BMJ* for 1902, Sir Walter Whitehead's article entitled 'Cases of Lymphangiectasis' included a series of photographs of a patient suffering from molluscum fibrosum.<sup>21</sup> The patient was photographed from the front, side and back view. The upper limb and scapula were removed and the patient was again photographed from the front and side.

Photographs taken during surgery were not commonly featured in the medical periodicals. In 1902 however, the *BMJ* published some dramatic photographs taken during surgery for cancer of the breast accompanying Sir William Banks's article entitled 'Operations for Cancer of the Breast'.<sup>22</sup> Another photograph was taken

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<sup>20</sup>Rankin, G. (1902) 'Friedrich's Ataxia', *The Lancet*, I: 150-153.

<sup>21</sup>Whitehead, W. (1902) 'Remarks on Cases of Lymphangiectasis with Enormous Overgrowth of Cutaneous and Subcutaneous Structures', *British Medical Journal*, I: 757-764. The article includes a coloured plate, photographs of histological sections and engravings.

<sup>22</sup>Banks, W.M. (1902) 'Operations for Cancer of the Breast', *British Medical Journal*, I: 5-10.

following the removal of a breast and the clearing out of the axilla. A follow up shot was taken after the wound had been brought together with sutures.<sup>23</sup>

The first anonymised photograph accompanied Sir William H. Bennett's 'Lecture on the Causes and Significance of Phantom Tumour' in *The Lancet* in 1902.<sup>24</sup> The young female patient was photographed lying on a bed, with her trunk exposed. After the print was made, a paper disc was placed over the area of the patient's face and then perhaps re-photographed, before being published. In June of the same year, a more complicated scenario accompanied Mr Noble Smith's paper on the 'Treatment of Congenital Torticollis.'<sup>25</sup> His article was illustrated by four cases. Each patient was photographed before and after treatment. Three pairs of the photographs were anonymised by placing white strips of paper over the area of patient's eyes on the actual prints. The remaining patient's photographs were published in their entirety.

Similarly in 1909, Victor Horsley's paper entitled 'The Function of the So-called Motor Area of the Brain', appeared with a series of anonymised photographs in the *BMJ*.<sup>26</sup> Again, the patient's identity was concealed by placing a white strip over the patient's eyes on the final print. Whether anonymisation was implemented by the author or at the request of the individual patient/relatives is unclear.<sup>27</sup> However, one cannot dismiss the possibility that the editor of the periodical may also have been involved in the decision-making process. In some instances the individual's identity

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<sup>23</sup> Ibid. 8-9.

<sup>24</sup> Bennett, W.H. (1902) 'A Lecture on the Causes and Significance of Phantom Tumours', *The Lancet*, II: 1-5. The accompanying legend record that it was 'From a photograph by Mr. Drake-Brockman'.

<sup>25</sup> Noble-Smith, E. (1902) 'The Treatment of Congenital Torticollis', *The Lancet*, I: 1829-1833.

<sup>26</sup> Horsley, V. (1909) 'On the Function of the so-called Motor Area of the Brain', *British Medical Journal*, II: 124-132. The first anonymised photographs I have found in the *BMJ* can be found in A.S. Cook's paper from 1895. See Cook, A.S. (1895) 'On some Tumours of the Thyroid Gland', *British Medical Journal*, I: 1262-1263.

<sup>27</sup> Whether private patient's photographs were anonymised more frequently is also uncertain.

was concealed for private patients, adolescents, women, and where the genitals were shown.

One of the first photographs to include 'mapping' appeared in *The Lancet* in 1906. Mapping involved drawing either on the patient's body or the photograph, in order to direct the viewer's attention to a particular detail in the image. However, it must be acknowledged that deciphering which technique was used is problematic. This is demonstrated in the photographs that accompanied Drs Stewart's and Collier's article entitled 'A Case of Rupture of the Brachial Plexus'.<sup>28</sup> The previous year G. Lenthal Cheatle's article entitled, 'The Points of Incidence Compared in Cancer, Leucoderma, and Scleroderma' appeared in the *BMJ*, accompanied by thirty-eight figures in which a variety of methods of mapping were employed.<sup>29</sup> The article featured drawings and photographs on which the outlines of lesions were marked, accompanied by a drawing of an arrow to guide the eye.

Some authors acknowledged the work of photographers in their published articles. However, it is difficult to acquire any further contextual information about their wider photographic practice. The second part of this chapter takes a contextual approach to the study of some of the clinical photographs that appeared in the *GMJ* during the late-nineteenth century.

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<sup>28</sup>Stewart, P. & Collier, M. (1906) 'A Case of Rupture of the Brachial Plexus', *The Lancet*, I: 692-693.

<sup>29</sup>Cheatle, G.L. (1905) 'The Points of Incidence Compared in Cancer, Leucoderma and Scleroderma', *British Medical Journal*, I: 926-929. A copy of this article is in William Macewen's papers, RCP SG10, Box 2A, File 11.

### *Clinical Photographs in the Glasgow Medical Journal*

The *GMJ* was founded in February 1828.<sup>30</sup> From the outset, images played an important role in the periodical. The first volume contains two engravings of a preparation made by James Jeffray, M.D., illustrating the 'Venous System'.<sup>31</sup> These mirror images are highly stylised, a striking combination of bones and flesh, with the venous system highlighted in red and yellow ink. It is also particularly intriguing to see half an expressive face on a dismembered and dissected cadaver.

In the *GMJ* during the 1850s one sees the appearance of minimal line drawings, for example, Dr Allen Thomson's notice on the 'Transposition of Viscera'.<sup>32</sup> These simple drawings are juxtaposed with more stylised woodcuts; exemplified by the image which accompanied Robert MacGregor's 'Case of Rupia'.<sup>33</sup> The patient's face is framed by drapes, which appears to mimic a convention commonly used to 'edge' dermatological wax moulages. The rigid nature of the portrait may indicate that the artist made the drawing from a study of the moulage rather than from life.

The pattern of woodcuts and drawings is evident in the *BMJ* and *The Lancet*. The choice of visual media most probably reflected the author's preferences; however,

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<sup>30</sup>*The Lancet* was founded in 1823, and the *BMJ* in 1857.

<sup>31</sup>Jeffray, J. (1828) 'Account of a Singular Distribution of the Venous System', *Glasgow Medical Journal*, 1: 1-4. Beneath plate two the following appears 'Drawn & Etched from the preparation by W. Warren, Glasgow.' See opposite page 1. It seems most likely that the artist-engraver would have been commissioned to execute the drawings in the Anatomy 'College' [Department] at the University of Glasgow.

<sup>32</sup>Thomson, A. (1854) 'Notice on the Dissection of a Case of Lateral Transposition of the Viscera of the Thorax and Abdomen in a Man', *Glasgow Medical Journal*, 1: 216-225. 'Plate III' bears the name of 'Maclure & Macdonald Ltd'. See opposite page 225.

<sup>33</sup>Macgregor, R. (1854) 'Cases in Clinical Medicine', *Glasgow Medical Journal*, 1: 445. For further information on the history of moulages see, Schnalke, T. (1995) *Diseases in Wax: The History of the Medical Moulage* (Berlin: Quintessence Books).

economics and the state of printing technology were important factors in the decision making process.<sup>34</sup>

With the introduction of photographs, other visual media, such as line drawings and engravings continued to appear in the *GMJ* on a regular basis. This account will show that the *GMJ* displayed many of the conventions, such as the before and after shot, which appeared in both the *BMJ* and *The Lancet*. However, in the *GMJ*, one is able to differentiate between the photographs taken by professionals and those of medical men. Moreover, many of the photographs that appeared in the *GMJ* can be cross-referenced to a variety of contexts such as hospital ward journals, M.D. theses and collections.

February 1878 saw the first clinical photograph reproduced in the *GMJ*. It accompanies William Sneddon's article 'On Numerical Anomalies of the Breast'.<sup>35</sup>[12:82] The girl has been photographed against a dark plain background as Henry Wright had advocated a few years previously in the *Photographic News*.<sup>36</sup> The image has curved borders, giving the impression of a *carte-de-visite*, thus hinting that the image may have been the work of a studio photographer.

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<sup>34</sup>There is little evidence of the transposition of photographs during the 1870s and 1880s. In the following decades; however, one sees the introduction of the photogravure, which often included the initials of the engraver or studio.

<sup>35</sup>Sneddon, W. (1878) 'On Numerical Anomalies of the Breast', *Glasgow Medical Journal*, **10**: 92-95. The print was executed on to pre-cut paper, which is oblong in shape, with rounded corners.

<sup>36</sup>Wright (1867), 203-204.



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The image was reproduced on a single page, no doubt signalling its importance, a trend that would be repeated in subsequent editions of the *GMJ*.

In November 1878 the first actual *carte-de-visite* print was “tipped in” to the *GMJ*, as reproduced here in thesis.<sup>37</sup>[13:84] The *carte* accompanied Dr Alexander Patterson’s case of a ‘Tumour of the Hand’.<sup>38</sup> Patterson related the image to the text stating that the tumour ‘occupies the whole of the back of the hand (see accompanying photograph)’.<sup>39</sup> The text includes the patient’s history, and current condition, including the size, colour, texture, as well as the precise location of the tumour. A close-up shot was taken of the patient’s hand. However only the tumour on the upper part of the hand is in focus, achieved by the photographer selecting a shallow depth of fields. After the photograph was taken the patient’s left arm was amputated at the junction of the humerus.<sup>40</sup>

The inclusion of actual photographic plates in the *GMJ* must have required considerable expense. However, these examples attest to the continued popularity of the *carte-de-visite* and its dissemination into the medical domain. Patterson not only

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<sup>37</sup>The print in the *GMJ* is square-shaped, but the top corners are curved, making it resemble a studio portrait. Each of the collodion sepia coloured prints measures 9½ x 6 centimetres. In each case the texture of the paper can be described as ‘pearl’, i.e. mid-way between matt and semi-gloss.

<sup>38</sup>Patterson, A. (1878) ‘Tumour of the Hand’, *Glasgow Medical Journal*, 10: 487-492.

<sup>39</sup>Ibid. 489.

<sup>40</sup>Ibid.



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used photographs for publications, but some of the original prints were in the larger format cabinet cards. In contrast to the *GMJ* no actual *cartes* appeared in the national journals such as the *BMJ* or *The Lancet*. This is not surprising considering the potential costs involved.

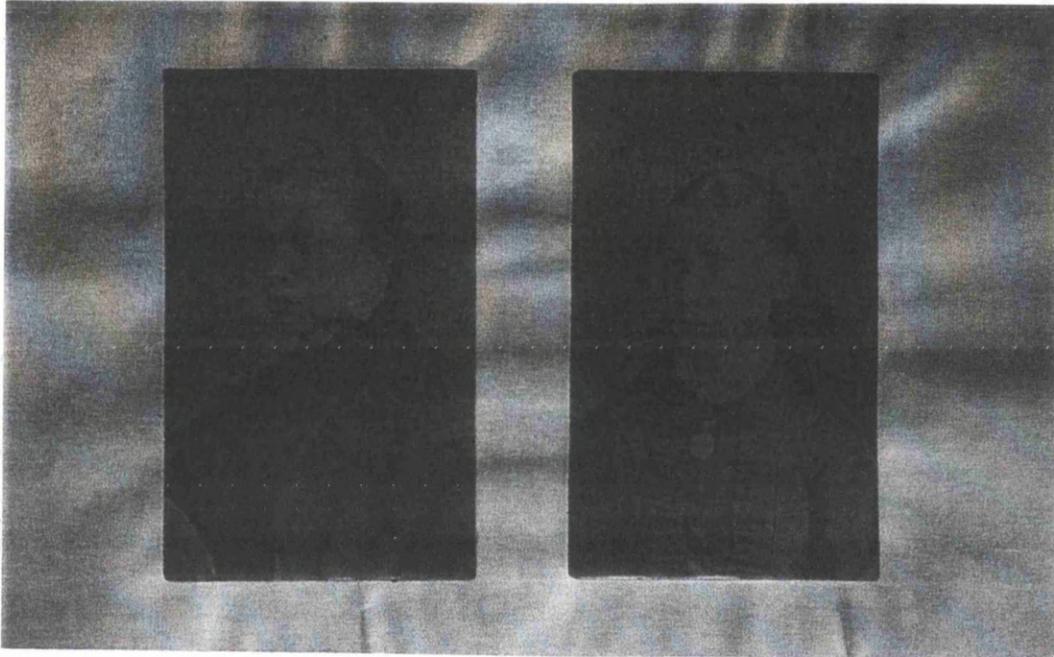
Many of Patterson's clinical photographs were the work of local Glasgow studio photographers. His case of a sub-mammary adenoid tumour published in the *GMJ* in 1878 is accompanied by Bowman's photographic studio logo, which is embossed on the page.<sup>41</sup> The following year, Patterson published an article entitled 'Two Cases of Adenoid Tumour'.<sup>42</sup> The presence of the photographs is somewhat proudly announced beneath the title of the article, stating 'With Two Photographic Illustrations'. What is striking about these two sets of photographs is the effort that has gone into ensuring the uniformity in composition. Each patient was photographed before and after surgery. As this example shows, the pathology in the 'before' shot is highlighted with the aid of a dark blanket. [14:86] While Patterson was evidently content to use the services of professional studio photographers, from the 1890s medical men began to take clinical photographs for inclusion in the *GMJ*.

Although many of the medical and photographic periodicals discussed were pre-occupied with technical and practical issues from the 1850s onwards, it was not until 1890 that Dr Charles Workman outlined the technical and historical developments,

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<sup>41</sup>Patterson, A. (1878) 'Sub-mammary Adenoid Tumour', *Glasgow Medical Journal*, 10: 2-3. Bowman's studio was located on Jamaica Street, Glasgow.

<sup>42</sup>Patterson, A. (1879) 'Two Cases of Adenoid Tumour', *Glasgow Medical Journal*, 11: 89-91.



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that had occurred since the birth of photography in 1839, in his paper entitled 'Photography in Medicine and Allied Sciences'.<sup>43</sup> Workman's article was aimed at physicians, surgeons, and medical students with an interest in photography. He described a series of methods and techniques which included: 'lantern positives'; 'photographing specimens' and 'micro-photography'.<sup>44</sup>

In 1894 Duncan Macartney published a paper on the 'Excision of the Elbow Joint', which was a condensed version of his M.D. thesis.<sup>45</sup> Photographs were taken of his patients before and after treatment by Dr R. Kennedy. Some of the after shots show the patients flexing their 'healthy' arms, whilst wearing dark coloured blankets, which simultaneously visually isolate their limbs, and cover up distracting details such as personal dress.

Another series of before and after shots accompanied Henry E. Clark's case of 'Amputation of the Scapula for Sarcoma', that appeared in the *GMJ* in 1896.<sup>46</sup> The

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<sup>43</sup>Workman, C. (1890) 'Photography in Medicine and Allied Sciences', *Glasgow Medical Journal*, **34**: 36-47.

<sup>44</sup>Workman acknowledges the help of Dr Thomas Reid, Mr. Adolph Schulze and Dr MacIntyre 'for their kindness in lending photographs and apparatus'. *Ibid.* 47. See also Workman, C. (1890) 'Two Cases of Athetosis', *Glasgow Medical Journal*, **33**: 342-350. Workman's paper is accompanied by four lithographs evidently executed by 'James Gilmour 282 Argyle Street'. In the article, Workman states that 'The illustrations which accompany it were taken from Case No. I. They are from photographs taken by myself with the magnesium flash light-exposure 1/30 sec. The arms and hand, though in constant movement, are therefore fairly sharp. No. II being a much milder case, did not give photographs worth the expense of publishing', 343.

<sup>45</sup>Macartney, D. (1894) 'Excision of the Elbow-joint, with Thirty Cases in Illustration', *Glasgow Medical Journal*, **42**: 165-187. See also Macartney, D. (1894) *Excision of the Elbow-Joint*, M.D. thesis, Special Collections, University of Glasgow. A search through the M.D. theses from the 1820s reveals that few contained drawings or sketches. The first photographs do not appear in an M.D. thesis until 1882. See Adam, T.B. (1882) 'Elephantoid Disease', Special Collections, University of Glasgow. Adam's thesis contains two studio photographs, (*carte-de-visite*) accompanying two individual cases of elephantoid disease he had discovered in China which show the patients' enlarged genitals.

<sup>46</sup>Clark, H.E. (1896) 'Amputation of the Scapula for Sarcoma, with Preservation of a Useful Limb', *Glasgow Medical Journal*, **45**: 1-5. At this time Clark was Professor of Surgery at St Mungo's College, Glasgow (formerly, the GRI Medical School). The patient was photographed with his back to the camera. He is facing a wall on which there is a distinctive pattern which appears in other photographs taken at St. Mungo's College. See the same background in some of the photographs which accompany the following: Middleton, G. (1894) 'A Case of General Bilateral Peripheral Neuritis, with Recovery',

article records that the patient was admitted to the GRI, therefore it is likely that this is where the photograph was taken. The decorative wallpaper in the background of the image contrasts strongly to the plain backdrops featured in the backgrounds of Alexander Patterson's photographs taken in the studio. Clark had read details of this case before the Glasgow Pathological and Clinical Society, when the patient was shown to the audience, three months after undergoing the amputation.<sup>47</sup> In January of the following year, Clark reported on the patient in a follow-up article entitled 'Recurrent Sarcomatous Growths after Amputation of Scapula'.<sup>48</sup> Footnote number '1' records that 'On 9<sup>th</sup> November, 1896 Mr. Clark showed photographs and preparations from a patient whose left scapula he had removed for sarcoma, and who was shown to the Society on 14<sup>th</sup> October, 1895'.<sup>49</sup> The patient died in August 1896. Soon afterwards a photograph was taken of the cadaver, to show the secondary sarcomatous growths in the diaplöe.<sup>50</sup> This image is worthy of special note, as it is the only photograph of a cadaver to appear in the *GMJ* throughout the late nineteenth and early twentieth century.<sup>51</sup> [15:90; 16:90]

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*Glasgow Medical Journal*, 42: 258-267.

<sup>47</sup>This image is possibly a photogravure (also known as heliogravure) a 'photomechanical process that reproduces all gradations of black through white on an *intaglio* metal plate. The process produces a finer image than half-tone block and photo-engravings'.

See <http://www.dac.neu.edu/printmaking/glossary.htm>. (20.8.02). In this process a photographic negative is etched onto a metal plate, providing an opportunity for the 'artist' to highlight or shade areas on the image. In this particular example, the letters 'S & S' appear in the bottom left hand corner of the image.

<sup>48</sup>Clark, H.E. (1897) 'Recurrent Sarcomatous Growths after Amputation of Scapula', *Glasgow Medical Journal*, 47: 1-4.

<sup>49</sup>*Ibid.* 1.

<sup>50</sup>This may also be a photogravure, no signature or the artist or studio is evident.

<sup>51</sup>The photograph was taken with the cadaver supported up against a door. Taking the photograph in this way, i.e. vertically, was easier than photographing from above, see also [65:143].

In 1894, Dr George Middleton reported on a case of ‘General Bilateral Peripheral Neuritis’, in the *GMJ*.<sup>52</sup>[17:91] Three photographs accompany Middleton’s article, which were taken before, during and after a demonstration of the *Tache Cérébrale*. Middleton noted that there was:

[A] very striking reaction. A broad band of redness immediately shows itself in the course of the track of the pencil point, and out of the redness there gradually rises a white elevation like the wheals of nettle-rash. Both redness and wheals persist for a considerable time, the redness for at least half an hour, and the wheals for an hour and a half ...<sup>53</sup> [T]his is the phenomenon known in this country as factitious or graphic urticaria, but perhaps better called by the non-committal name of dermography given to it by MM. Ch. Féré and H. Lamy, who published, in the second volume of the *Nouvelle Iconographie de la Salpêtrière* (1889) an article on the subject.<sup>54</sup>

Four years later, Dr James Dunlop took two photographs for another of Middleton’s interesting and unusual cases: that of a ‘Congenital Absence of the Left Radius and of the Left Thumb’.<sup>55</sup> Dunlop photographed the patient, who was naked from above the waist and stood facing the camera. A black line and a cross have been

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<sup>52</sup>Middleton, G. (1894) ‘A Case of General Bilateral Peripheral Neuritis, with Recovery’, *Glasgow Medical Journal*, **42**: 258-267. The term *Tache Cérébrale* is used to describe morbid conditions of the skin, it was ‘used by Trousseau to describe a patch or streak of hyperaemia producing by irritating the skin’, see R. Quain (ed.) (1890) *A Dictionary of Medicine* (London: Longmans, Green, & Co.), 1585.

<sup>53</sup>Middleton, (1894), 258-267. Charles Féré (1882-1907) was Charcot’s secretary and intern, see Goetz, C., Bonduelle, M., & Gelfand, T. (1995) *Charcot: Constructing Neurology* (Oxford: Oxford University Press), 260-261.

<sup>54</sup>This paragraph was continued in the footnote of Middleton’s paper.

<sup>55</sup>Middleton, G. (1898) ‘A Case of Congenital Absence of the Left Radius and of the Left Thumb, Malformation of the Left Ulna, Spinal Curvature, and Complete Displacement of the Heart to the Right’, *Glasgow Medical Journal*, **50**: 244-249. The photographs are accompanied by an X-Ray of the



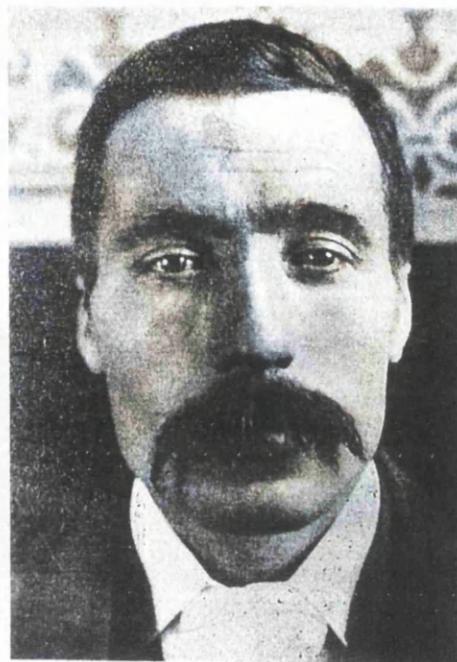
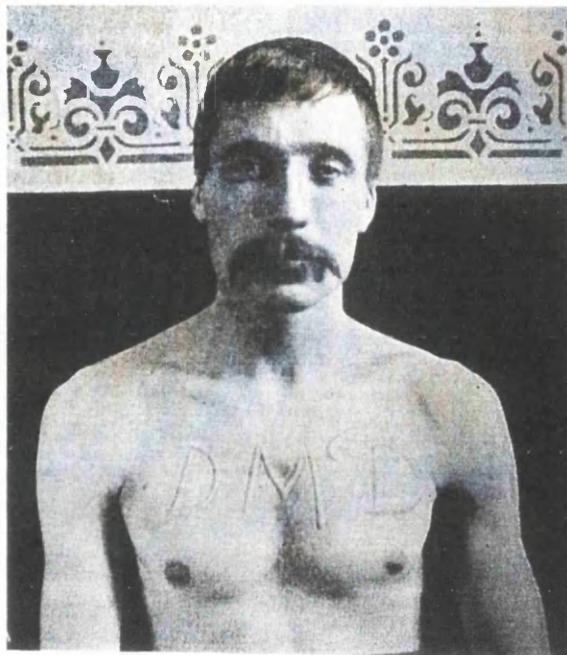
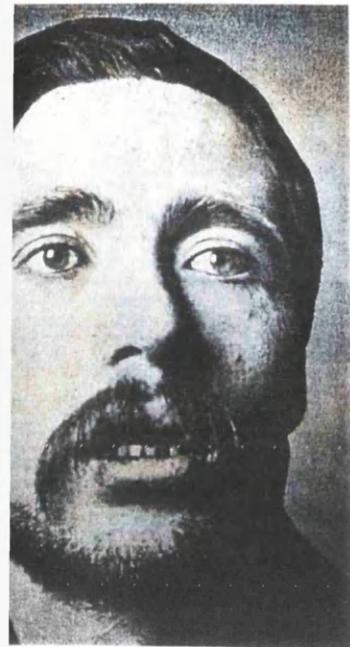
From photograph taken before operation.

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Secondary Sarcomatous (Growth from diplöe.  
(Photograph taken after death.)

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drawn on the patient's chest, to illustrate 'the outline of the cardiac dullness as demarcated by a light percussion stroke, and the cross, in the third right intercostal space above and within the nipple line indicates the position of greatest impulse'.<sup>56</sup> Drawing on the patient's body was a relatively common convention used in later nineteenth-century clinical photography, but this is one of the few examples to be included in the *GMJ*.<sup>57</sup>

The *GMJ* contains only a handful of clinical photographs that can be identified amongst ward journals and pathological reports of the Glasgow's Western Infirmary (WI) and the Royal Hospital for Sick Children (RHSC).<sup>58</sup> For example Dr T.K. Dalziel's paper, entitled a 'Specimen of Congenital Obliteration of the Small Intestine', appeared in the *GMJ* in 1895.<sup>59</sup> Either the original print, or a copy, was included in the RHSC's pathology journal.<sup>60</sup>

Clinical photographs were also shown at the meeting of local medical societies. Although the *carte-de-visite* was an ideal format that could be easily reproduced in publications, it was not so useful when one wanted to show photographs to the audience of a medical society, for instance. What was needed was a version of the

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patient's right arm. The patient had other complications, most notably the displacement of the heart to the right.

<sup>56</sup>Ibid. 246-247.

<sup>57</sup>See also [68:144].

<sup>58</sup>Photographs derived from other institutions also featured in the *GMJ*. Devon, J. (1905) 'Case of Precocious Development', *Glasgow Medical Journal*, 64: 339-342. One of the two photographs is evidently a 'mug-shot' taken in the prison. The individual was photographed with his hands on his chest facing the camera, but in the background a mirror was hung on the wall at an angle, which reflected the patient's profile, enabling the viewer to see both full face and profile in one image. Taking photographs with aid of this form of 'mirror device' was a feature of many late nineteenth-century psychiatric photographs, which feature in asylum case books.

<sup>59</sup>Dalziel, T.K. (1895) 'Specimen of Congenital Obliteration of the Small Intestine', *Glasgow Medical Journal*, 44: 215-216. For Dalziel's use of mapping see, Dalziel, T.K. (1898) 'A Large Retroperineal Lipoma from a Child', *Transactions of the Glasgow Pathological and Clinical Society*, 7: 107-109.

<sup>60</sup>RHSC Pathology Report, Volume III, Report Number 372. The Reports are un-catalogued and are held in the Department of Pathology at the RHSC.

clinical *carte-de-visite*, large enough for collective viewing, or which could be handed around to the audience. The 'Card Specimen' was an answer to this problem. The first reference to 'Card Specimens' in Glasgow occurs in the Glasgow Pathological and Clinical Societies Minute Book for 1891, when Mr Maylard showed a pedunculated carcinoma of the thigh with microscopical sections of the same.<sup>61</sup> Although there are no detailed descriptions of what 'card specimens' actually were, photographs were published under this heading in the *GMJ*.<sup>62</sup> The first published example in the *GMJ* accompanied Dr George H. Edington's cases of carcinoma of the breast from Sir Hector Cameron's wards in the WI in 1905.<sup>63</sup> Although described as card specimens, the images were mounted photographic portraits.<sup>64</sup>[18:94]

The first photograph of an anonymised patient in the *GMJ* accompanied Dr Handley's report on 'The Mode of Spread of Breast Cancer' in 1905.<sup>65</sup> The patient was photographed with a white cloth around head, which covered her eyes.<sup>66</sup>[19:95]

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<sup>61</sup>Minute Book of the Glasgow Pathological and Clinical Society, Volume II, 1879-1891, 'Ordinary Meeting No. VIII, Faculty Hall, May 11<sup>th</sup> 1891'. Reference RCPSG4/1/2.

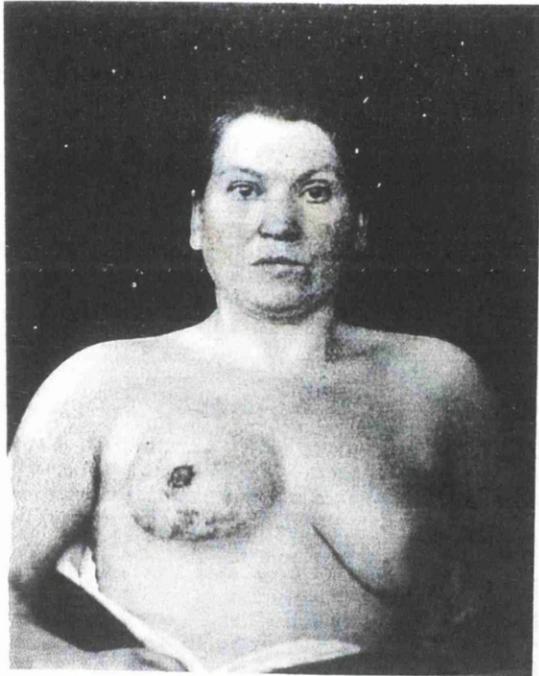
<sup>62</sup>See for example, Dalziel, T.K. (1895) 'Specimen of Congenital Obliteration of the Small Intestine', *Glasgow Medical Journal*, 44: 215-216. The case and photograph were included in Volume III of the Pathological Reports for the Royal Hospital for Sick Children, Glasgow.

<sup>63</sup>Edington, G.H. (1905) 'Card Specimens - Glasgow Pathological and Clinical Society', *Glasgow Medical Journal*, 44: 48-50.

<sup>64</sup>Ibid. 50. The dimensions of the original images and boards were not given.

<sup>65</sup>Handley, W.-S. (1905) 'The Mode of Spread of Breast Cancer in Relation to its Operative Treatment', *Glasgow Medical Journal*, 64: 401-413.

<sup>66</sup>Ibid. 401-413.



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## *Conclusion*

In this chapter I have suggested that the first photographs that appeared in the *GMJ* were the work of professional studio photographers. Therefore both patients and specimens were photographed within the context of the studio, rather than the hospital. Increasingly during the 1880s and 1890s, however, as a result of advances in printing and photography, many of the clinical photographs that featured in the *GMJ* were taken by medical men. These images are important as they attest to the growing importance of visual acuity among Glasgow medical men. As a result patients were more likely to be photographed within the context of the hospital by the House Surgeons and Resident Assistants. This kind of activity would, of course, have required some form of makeshift studio or room within the hospital, but also a darkroom for processing and printing. One eventually sees that photographs began to feature in M.D. theses, individuals' collections, and hospital case notes and pathological reports.

## ***Chapter Four: Photographs, Case Notes and Pathology Reports***

According to Stanley Reiser, pictorial evidence was amongst those diagnostic techniques that ‘found doctors and their senses wanting’.<sup>1</sup> Some of Glasgow’s physicians and surgeons and their assistants were keen to use photographs in their case notes for teaching and research purposes. This chapter examines a selection of photographs that featured in the surgical case notes and pathological reports of the Glasgow Western Infirmary (WI) and the Royal Hospital for Sick Children, Glasgow (RHSC). The first photographs appeared amongst their respective case notes from the mid-1880s onwards, and a decade or so later they were included in the pathological reports. Many of the photographs were taken in the hospital, and were the work of the House Surgeons perhaps most notably, Drs Lewis R. Sutherland and John H. Teacher at the WI and George H. Edington at the RHSC. Aspects of Sutherland’s, Teacher’s and Edington’s photographic practices will be discussed in this chapter.

### ***Overview***

The inclusion of photographs in hospital case notes was commented upon in the mid-to-late nineteenth-century medical and photographic press. In 1856, Dr Hugh

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<sup>1</sup>Reiser, S.J. (1993) ‘Technology and the Use of the Senses in Twentieth-century Medicine’, in W.F. Bynum & R. Porters (eds.) (1993) *Medicine and the Five Senses* (Cambridge: Cambridge

Welch Diamond (1808-1886) was one of the first to recognise the potential role of photography within medical institutions. According to Diamond, photographs were ‘invaluable to superintendents of asylums, not only for physiological interest, but also in cases of re-admission’.<sup>2</sup> A few years later, the introduction of photography into Parisian hospitals was announced in the UK’s photographic press.<sup>3</sup> In 1865, “A. Medical Student” wrote a letter to the Editor of *The Lancet* to advocate the integration of photography into routine hospital practice:

Sir, I beg to suggest to your readers the propriety of taking a photograph on a paper of interesting cases and fixing them side by side with the history of the patient in the casebook. This would greatly enhance the value of the records and the trouble and expense would not be very great. Perhaps this plan is already owned.<sup>4</sup>

Not all of the hospitals in Britain followed the trend begun by their Parisian counterparts. The theme was revisited a few years later in an article entitled ‘Medico-Photography’ which appeared in *The Photographic Journal* in 1870:

[T]he art of photography has, to a very great degree, aided the physician and surgeon, supplying them with reliable records of cases which could not fail to contribute towards the furtherance of medical science, and to enlarge the experience of students.<sup>5</sup>

From the 1880s onwards much of the photographic literature promoted the advantages of clinical photography in the hospital and the classroom. In *The*

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University Press), 262-273.

<sup>2</sup>Diamond, H.W. (1856) ‘On Photography Applied to the Phenomena of Insanity’, *Journal of the Photographic Society*, **44**: 80-89.

<sup>3</sup>Editorial (1859) ‘Untitled’, *Journal of the Photographic Society*, **76**: 122.

<sup>4</sup>“Student, A. Medical” (1865) ‘Photography and Hospital and Technical Practice’, *The Lancet*, **II**:447.

<sup>5</sup>Editorial (1869) ‘Medico-Photography’, *The Photographic Journal*, **14**: 133-134.

*Photographic News* of 1880 an article appeared entitled 'Photography In and Out of the Studio — Photography in Medical Science.'<sup>6</sup> The Editor stated that:

It is somewhat curious, considering the assistance which photography is capable of lending to medical science, that so little use is made of it in hospitals. Surely a record of abnormal cases would be worthy of preservation, to say nothing of the superiority, so far as accuracy is concerned, of the camera over the pencil of the artist, however skilful he may be. Photographs of the different forms of skin disease, for instance, ought to be of great value not only to the specialist, but to the ordinary practitioner, and of still greater service would be a series illustrating the various stages of any cutaneous disorder, tracing it from an early appearance through its severity to the final point where health is restored. Of course there would be a difficulty in photographing a patient in an ordinary ward, but there is not reason why a small studio should not be attached to every hospital into which the bed (if the patient be not able to walk) could be wheeled. With gelatine plates the manipulatory details are reduced to a minimum, but if our medical friends do not care to dabble in the art themselves, assistants abound, and there are hosts who would not object to be engaged at a hospital for a permanency.<sup>7</sup>

In 1889 Andrew Pringle's article entitled 'Photography and Medical Research' attempted to further the introduction of photography into the hospital.<sup>8</sup>

According to Pringle:

To no special line of research had photography rendered such notable service as to medical research and treatment. During the last two or three years many new installations had been started in the medical schools for the purpose of recording the causes and appearances of diseases by the invaluable and trustworthy means of photography. It was important to have photographs of patients in disease before and after treatment, and photography was useful in cases where sketches could not be made as, for instance, in a disease of the tongue.<sup>9</sup>

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<sup>6</sup>Editorial (1880) 'Photography In and Out of the Studio', *The Photographic News*, 25: 157.

<sup>7</sup>Ibid.

<sup>8</sup>Pringle, A. (1889) 'Photography & Medical Research', *The Photographic Review of Reviews*, 1: 143.

<sup>9</sup>Ibid. 143.

In 1891, Dr Edwards's lecture on 'Medical Societies and Photography', appeared in *The Photographic Review of Reviews*.<sup>10</sup> Edwards saw the advantage in collecting photographs for hospital teaching, because it enabled:

[C]omparisons of different cases to be made by those who are interested in following the intricacies of any special disease ... carefully-taken notes, illustrated by photography should be published by every large hospital, so that everyone may have the opportunity of drawing conclusions from such rare cases as ordinarily come only under the personal observation of a favoured few. For teaching purposes such illustrated collections of notes are almost invaluable.<sup>11</sup>

In common with the photography journals, the *BMJ* and *The Lancet* were keen to promote the role of clinical photography within the hospital. An account from *La Lumière* on the 'Applications of Photography to Anatomy and Surgery' was summarised in the *BMJ* in 1858.<sup>12</sup> It records the work of the French surgeon M. Nélaton who had:

[A]ttached to the *clinique* of the School of Medicine in Paris an artist, whose special duty it is to take representations of the cases before and after operation ... In the hospitals of this kingdom, too, a regular system like that adopted by M. Nélaton, and the formation of museums of photographic illustrations of anatomy and surgery, would be of great benefit to practitioners and to students. Even as a means of instruction in the forms and disposition of comparatively ordinary objects, the photographic art, especially if aided by the stereoscope, would be a valuable auxiliary in the medical schools of universities and hospitals.<sup>13</sup>

The advantages of collecting and comparing clinical photographs were discussed in an article entitled 'Clinical Photography', which appeared in the *BMJ* in 1895.<sup>14</sup> The Editor noted that:

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<sup>10</sup>Edwards, Dr (1891)'Medical Work', *The Photographic Review of Reviews*, 3:129-130.

<sup>11</sup>Ibid.

<sup>12</sup>Editorial (1858) 'Untitled', *British Medical Journal*, I: 192.

<sup>13</sup>Ibid. The writer is probably referring to Auguste Nélaton (1807-1873).

<sup>14</sup>Editorial (1895) 'Clinical Photography', *British Medical Journal*, I: 1402.

The increased use during the last few years of photography for obtaining records of clinical conditions is a real advance in clinical methods. In many cases no verbal description can surpass a good photograph of the patient, and the value of the preservations of such photographs for comparison with the condition presented by the patient at a later date can hardly be exaggerated. To take an example, photographs of patients suffering from myxoedema, before and after treatment with thyroid extract, present the results of this mode of treatment in a manner more striking and convincing than any description in words could be. Further the presentation of such portraits and their comparison with the condition of patients at later dates will often give valuable assistance in determining whether treatment should be modified or resumed. In the same way photographs of diseased or injured portions of the body will often be of the greatest service, not only as contributing by their accuracy to the advance of medicine, but also in the interests of the individual patient.<sup>15</sup>

From the mid-nineteenth century onwards the technical inadequacies of photographing pathology were widely acknowledged. The general tone was voiced by Dr Henry Wright in *The Photographic Journal* in 1867. According to Wright:

Photography has not yet fulfilled all the anticipations originally formed as to its value for the representation of the appearances of parts after death, or after dissection; but this is chiefly due to the unbound confidence of those who sought to make it thus useful. There was often submitted to the camera a beautifully distinguished dissection, with structures certainly varying in tint, but comprising no other colours than yellow or red, and half-tones that shaded into black.<sup>16</sup>

Nearly twenty years later, the medical press began to engage in the debate, offering the latest practical tips. In 1886, the *BMJ* reported that Dr J.M. Gourley ‘exhibited a series of photographs of pathological specimens, taken while the specimens were immersed in water. For the purpose of being photographed, each specimen was carefully fastened on a blackboard by means of pins and sunk in a

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<sup>15</sup>Ibid.

tank of clear water, all irregularities of the surface of the specimens instead of lying flat were made to float'.<sup>17</sup> This was preferable, Gourley argued, to photographing 'specimens hung up dry before the camera, they often assume the unsightly appearance of irregular masses of clinker or pumice stone'.<sup>18</sup> Such technical debates dominated contemporary literature surrounding the photographing of pathology.

The remainder of this chapter examines the practice and character of clinical photography within the surgical ward journals and pathology reports of the WI and the RHSC. For some of the House Surgeons photography became a routine activity. It is possible to cross-reference identical clinical photographs between ward journals and pathology reports. This not only provides a more comprehensive account of the individual case, and its importance in teaching and research, but it also provides insight into the institutional practice of photography.

### *The Glasgow Western Infirmary*

The WI was opened in 1874, and from the outset it was destined to serve as a base for clinical instruction for the University of Glasgow.<sup>19</sup> The four senior clinical appointments were held by William Tennent Gairdner, Professor of Medicine;

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<sup>16</sup>Wright, H. (1867) 'Address on the Medical Uses of Photography', *The Photographic Journal*, 11: 204.

<sup>17</sup>Gourley, J.M. (1886) 'Photography in Pathology', *British Medical Journal*, I: 162-163.

<sup>18</sup>Ibid.

<sup>19</sup>Macqueen, L. & Kerr, A.B. (1974) *The Western Infirmary 1874-1974: A Century of Service* (Glasgow: John Horn Ltd.). See especially pages 1-6.

Thomas McCall Anderson, Professor of Clinical Medicine; George H.B. Macleod, Professor of Surgery; and George Buchanan, Professor of Clinical Surgery. Dr Joseph Coats (1846-1899) was the WI's first pathologist. It was not until 1894 that Coats was installed as the University of Glasgow's first Chair of Pathology.<sup>20</sup>

One of the pathologist's duties was to 'keep a book, with a suitable index, containing a record of each post-mortem inspection, with such brief notices of the course of the disease as may illustrate the morbid appearances and always with such references to the Ward Case Books as may enable anyone to refer to them for more detailed information'.<sup>21</sup> Thus, ward journals and pathological reports could be seen in juxtaposition. Therefore not only did images contribute to more complete cases, but the duplication of images in both contexts made for easier identification and recognition of cases by pathologists, clinicians and medical students.<sup>22</sup>

From the outset the WI had a small room for photography, which was located above the pathology museum.<sup>23</sup> However, a search of the Minute Books of the WI and the Minutes of the Court and Senate of the University of Glasgow has revealed little regarding the practice of clinical photography.<sup>24</sup>

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<sup>20</sup>Macqueen & Kerr, (1974) *The Western Infirmary 1874-1974*, 8. See also Anderson, J.R. (1994) *Pathology at the Western Infirmary: The First Hundred Years 1894-1994* (Glasgow: University of Glasgow), 14. The ground floor plan for the Pathological Institute has a darkroom marked on it, behind the lecture room. However, whether it was actually built to this layout is unclear; for the 'Ground [Floor]Plan', see GUABRC, HB6/14.

<sup>21</sup>*Constitution of the Western Infirmary of Glasgow with Bye-Laws and Regulations, 6 November, 1883*, (Glasgow: Bell & Bain, 1883), 38.

<sup>22</sup>I have recognized and identified cases in much the same way.

<sup>23</sup>*Ibid.* 35.

<sup>24</sup>Glasgow University Court Minutes, held at the GUABRC, Ref. C1, and the Glasgow University Senate Minutes, S1; Western Infirmary Minute Books, GGHBA, H6.

## *Photographs and Case Notes at the Glasgow Western Infirmary*

The following section examines the photographs in a selection of WI's surgical ward journals. As we have already seen in Chapter Two, Dr George Buchanan made use of photography while serving as a civil surgeon during the Crimean war in 1855. From 1874, Buchanan was Professor of Clinical Surgery at the University of Glasgow and Visiting Surgeon to Wards III and VIII at the newly opened WI. His next discernible links with photography occurred in the journals for both wards from 1885 to 1898. There is no explicit evidence to suggest that Buchanan took any of the photographs himself for his ward journals. Much of this work devolved upon his House Surgeons, who included Lewis R. Sutherland, and John H. Teacher.

In 1885, Buchanan's House Surgeons on Ward VIII were Drs. W.F. Somerville, Duncan Love and John Macdonald.<sup>25</sup> The first photograph in Buchanan's ward journal appears in January 1885, and accompanies what is described as 'a typical case of Talipes Varus'.<sup>26</sup> A photograph was taken of K.M. and shows her sitting with her legs dangling over the side of a bed, some time after her date of admission, but before undergoing surgery on 16<sup>th</sup> January, 1885.<sup>27</sup> Somerville was the photographer in this instance, as he wrote his initials 'W.F.S.' beneath the print, after it had been put in the ward journal.<sup>28</sup>

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<sup>25</sup>WI Journal, Ward VIII, Volume V, 56, HH66/8/5.

<sup>26</sup>Ibid.

<sup>27</sup>On looking at the original print it seems as if the photograph was taken outdoors on a sunny day.

<sup>28</sup>Somerville went on to become a 'Medical Electrician' at the WI. See, for example, Somerville, W.F.S. (1913) 'X-Rays in Malignant Disease, Before and After', *Glasgow Medical Journal*, **80**: 184-186.

A few months later, M.N. was admitted to Ward VIII suffering from Genu varum. Two photographs were taken to show the front and back view of the patient standing on a chair, in front of a dark coloured screen.<sup>29</sup> The two prints were pasted one above the other in the ward journal, and the accompanying case notes record that ‘the photos opposite are sufficient to show the case’.<sup>30</sup>

*Dr Lewis R. Sutherland*

Following the entry of a case of Genu Valgum in April 1885, there appears to be a hiatus in the photographic activity on Buchanan’s wards. That is, until towards the end of 1891, when Dr Lewis R. Sutherland (1863-1933) became House Surgeon on Buchanan’s Ward III at the WI.<sup>31</sup> Sutherland was a skilled and imaginative photographer. But it is noticeable that both Sutherland and Buchanan had declared interest in the pathology of cancer.

Most patients were photographed one or two days after admission to the WI. The background details, such as tiled walls, suggest that patients were photographed in the WI, perhaps in a private or reception room. Some of Sutherland’s photographs from the WI journal for Ward III are presented in this

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<sup>29</sup>It is apparent that it is the patient who has turned her position, rather than the photographer, as the screen is visible in each shot.

<sup>30</sup>WI Journal, Ward VIII, Volume V, 100, HH66/8/5. It is unclear who took these particular photographs.

<sup>31</sup>Sutherland went on to become Senior Assistant to Joseph Coats, Professor of Pathology, then Demonstrator in Pathological Anatomy at the WI, and pathologist to the RHSC. Later in his career he became Professor of Pathology at the University of St. Andrews, and Honorary Consulting Surgeon to the Dundee Royal Infirmary.

chapter in a chronological narrative, running from July to September 1891.<sup>32</sup> [20-23:107; 24-27:108]

Sutherland's first photograph accompanies the case of W.F. aged five months, who was admitted to Ward III on 21<sup>st</sup> July, suffering from a double harelip and cleft palate.<sup>33</sup> [20:107] A few days later the patient was photographed. Sutherland's ward journal entry records that on the:

23 July 91, Dr B.[uchanan] operated today, without chloroform. The intermaxillary portion was sutured to left maxilla the gap being sutured anteriorly. The lips were then pared, 4 strong silver sutures applied, a fine horse-hair suture was used for the prolabium. The result was simply perfect ... 17 July 91 returned today. Silver stitches retained. To return to be photographed in a few days.<sup>34</sup>

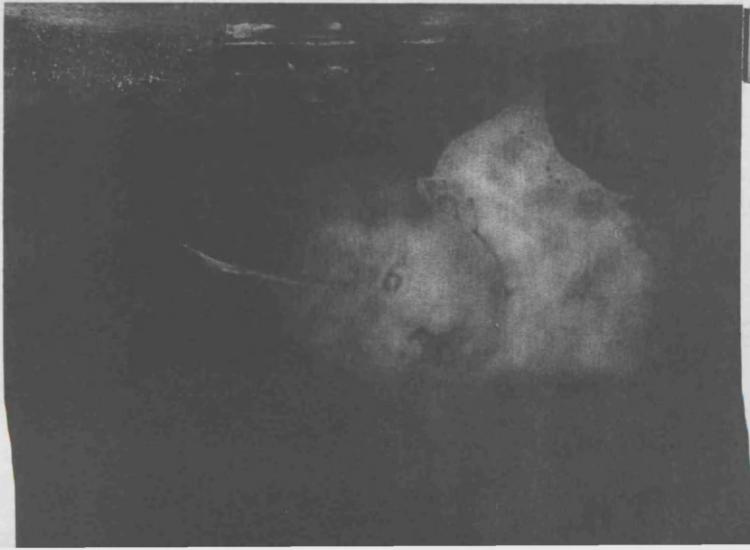
Whether the child did return to the WI is unclear, as there is no follow-up photograph in the ward journal.

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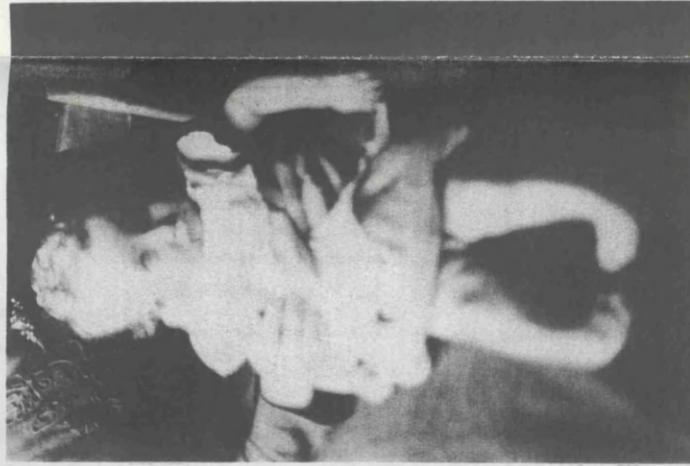
<sup>32</sup>All of the following photographs are found in the WI Journal for Ward III, Volume XIX, HH66/3/19. The number of the photograph and page in this thesis will be followed by a description of the condition, the year, followed by the page number in the ward journal: [20:107] Double hare lip and cleft palate (1891), 68-69; [21:107] Talipes (1891), 143; [22:107] Epithelioma on a bum scar (1891), 80; [23:107] Malignant growth on the neck (1891), 244; [24:108] Double talipes equino varus (1891) 83; [25:108] Tumour of the mouth (1891), 111; [26:108] Swelling of the neck, (1891) 119; [27:108] Malignant growth originating in a wart (1891), 137.

<sup>33</sup>WI Journal, Ward III, Volume XIX, 68-69, HH66/3/19.

<sup>34</sup>Ibid.



20



21



22



23

Robert Logie  
at 13  
Malignant growth of  
epithelioma  
of forehead  
1888

Marion M. V.  
58  
epithelioma (16 mths)  
on Burn-Scar  
(54 yrs) 1888

A few weeks later, Sutherland began to photograph patients and their husbands on which he had written brief case notes. On 6 August 1901 he identified Dr. Ward III of the WI suffering from a variety of symptoms (23-107) He was admitted to the hospital on 10 August 1901. The following day (10) a consultation rather than surgical procedure as a result of the case can be done. The state of the patients is shown in the following photographs.



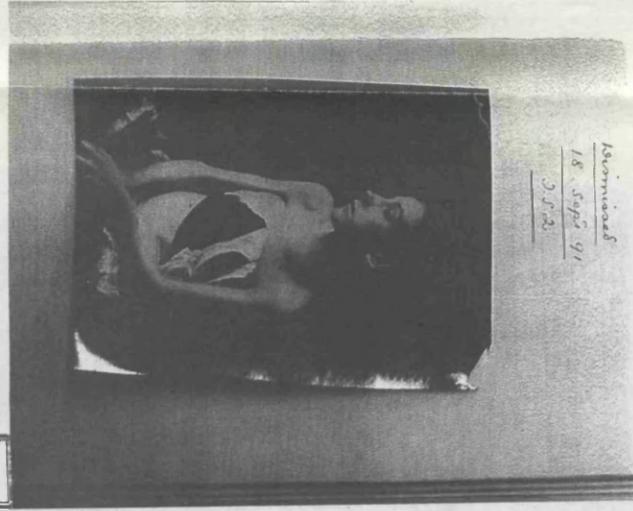
24

Ward III, who was admitted to the hospital on 10 August 1901, suffering from a variety of symptoms (23-107) He was admitted to the hospital on 10 August 1901. The following day (10) a consultation rather than surgical procedure as a result of the case can be done. The state of the patients is shown in the following photographs.



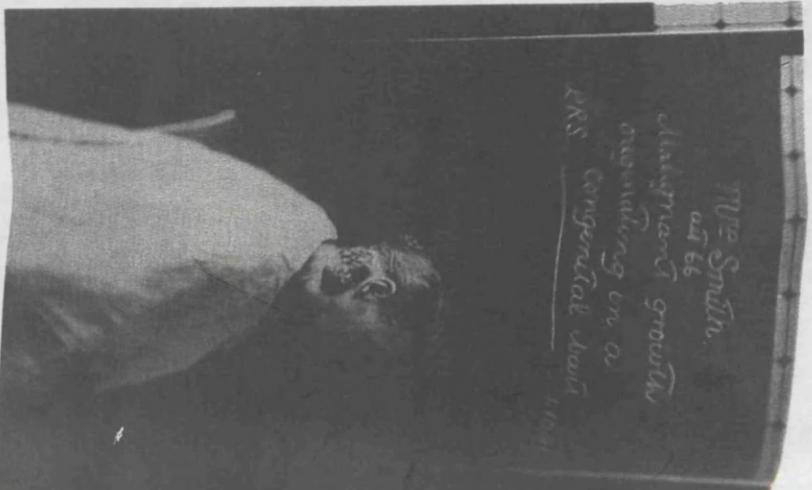
25

to use a large degree of the case notes on the photographs.



26

Isomniad  
18 Sept 91  
3.5.2



Mr. Smith  
at 66  
dilatation grows  
converting in a  
KRS congenital deafness

A few weeks later, Sutherland began to photograph patients sitting in front of a blackboard, on which he had written brief case notes. On 8<sup>th</sup> August, R.L. was admitted to Ward III of the WI suffering from a tumour of the neck.<sup>35</sup>

[23:107] He was admitted:

[O]n humanitarian rather than surgical grounds as nothing beyond dressing can be done. The state of the matters is shown in the accompanying photos. The disease is making rapid progress. Growth invading neck anteriorly.<sup>36</sup>

Sutherland photographed the patient at least twice: as he sat in profile, facing to the left, and another with the patient turning his head slightly towards the camera. In the background Sutherland chalked the patient's details on a blackboard, these read in the photograph as: 'R.L. aet 43, Malignant Growth of 4 months secondary to epithelioma of tongue removed 3 years ago'.<sup>37</sup>

Sutherland had successfully combined the photograph and case note in one. He continued to use this set up when photographing a series of patients admitted to Ward III throughout August and September 1891.<sup>38</sup> Sutherland often wrote his initials, 'L.R.S.', beneath the patient's case notes on the blackboard, thus signifying his authorship of the image. Taking this kind of photograph would have required Sutherland to use a large depth of field, in order to have the patient in the foreground and the case notes on the blackboard in focus.<sup>39</sup>

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<sup>35</sup>WI Journal, Ward III, Volume XVIII, 243-244, HH66/3/18.

<sup>36</sup>Ibid.

<sup>37</sup>Ibid.

<sup>38</sup>As well as the aforementioned cases of R.L., the WI Journal for Ward III, Volume XIX, HH66/3/19, contains another example of Sutherland's use of this photographic convention, see pages, 81, 83, & 136.

<sup>39</sup>Sutherland was not always successful in his choice of depth of field, as in the example of J.M. admitted to Ward III, 12<sup>th</sup> August 1891, suffering from double talipes equino varus. She was photographed sitting in front of the blackboard, but the case notes are out of focus. Sutherland's case notes are accompanied by a pencil sketch of one of J.M.'s limbs. See WI, Journal, Ward III,

Subsequently, this convention was to become a feature of criminal photography, when the accused would sit in front of a blackboard on which was written their name and details of their crime.

Some of Sutherland's photographs are memorable. For example, M.M. was admitted to the WI on 6<sup>th</sup> August 1891 with an epithelioma involving the scar of an older burn on the left groin.<sup>40</sup> [22:107] Sutherland's journal entry records that 'the patient has an anxious and worn look, and idea of the extent and nature of the lesion may be obtained from the accompanying photograph'.<sup>41</sup> Sutherland's last photograph appeared in Buchanan's ward journals in September 1891.<sup>42</sup> Soon afterwards, he became an assistant to Dr Joseph Coats in the WI's Department of Pathology, where he continued his photographic activities. This aspect of Sutherland's work will be discussed later in this chapter.<sup>43</sup>

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Volume XIX, 82-83, HH66/3/19. The idea of combining image and text has parallels in some American civil war photographs. For example, Dr George Alexander Otis's *Photographic Atlas of Civil War Injuries*, compiled from 1864 to 1881, includes images of patients photographed holding a small blackboard that bears their name and the date the photograph was taken. Bengston, B.P. & Kuz, J.E. (1996) *Photographic Atlas of Civil War Injuries: Photographs of Surgical Cases and Specimens, Otis Historical Archives* (Michigan: Medical Staff Press). See for example page 105 'Photograph No. 116 - United Gunshot Fracture of the Middle Third of the Right Femur'.

<sup>40</sup>WI Journal for Ward III, Volume XIX, 81, HH66/3/19.

<sup>41</sup>Ibid.

<sup>42</sup>Ibid. 83. Sutherland would later edit the fourth and fifth editions of Coats's *Manual of Pathology*, see L.R. Sutherland (ed.) Coats, J. (1900) *A Manual of Pathology*, (London: Longmans, Green); L.R. Sutherland (ed.) Coats, J. (1903) *A Manual of Pathology*, (London: Longmans, Green).

<sup>43</sup>After Sutherland's departure, a couple of photographs accompanied case notes, see for example, WI Journal, Ward III, Volume XIX, page 155, Tumour of the knee (1891); page 200, Fracture of skull (1891). Some of these photographs may be the work of J. Crawford Renton, Visiting Surgeon to the WI from 1897. During the mid-1890s he took over Ward III on behalf of George Buchanan. See also, Sutherland, L.R.S. (1897) 'Card Specimens – Stereoscopic Photography in the Demonstration of Morbid Lesions', *Transactions of the Glasgow Pathological and Clinical Society*, 7: 60-63. Sutherland showed a series of stereoscopic photographs partly in colour, taken of various cancers. In the article Sutherland thanked 'Mr William Ogilvie, Senior Attendant at the Pathological Laboratory at the Western Infirmary for his skilled assistance in the preparation of the photographs shown.'

*Dr John H. Teacher*

It was not until 1894 that photographs began to be a regular feature again in Buchanan's journals for Ward III at the WI.<sup>44</sup> Much of this work can be attributed to one of Buchanan's House Surgeons John H. Teacher (1869-1930), who, in common with Sutherland, displayed more than a passing interest in pathology.<sup>45</sup> However, unlike Sutherland's images, Teacher's photographs circulate more freely between the WI ward journals and pathological reports. Teacher does not appear to have signed 'his' photographs. Therefore, attributing the photographs to him is somewhat contentious; however, his hand is readily identifiable in Buchanan's ward journals. Teacher tended to take more sober, close-up shots than Sutherland, and also used techniques such as mapping.<sup>46</sup>

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<sup>44</sup>See the following WI Journals for Ward III: Volume XXI, HH66/3/21; Volume XXII, HH66/3/22 & Volume XXIII, HH66/3/23.

<sup>45</sup>See 'Obituary, John Hammond Teacher', (1930) *Glasgow Medical Journal*, 114: 285-289; Stewart, C. (2000) 'History of Gynaecological Pathology: John Hammond Teacher', (Unpublished). Later in 1894, Teacher became Underkeeper of the Hunterian Museum, going on to work with Professor Joseph Coats in the Pathology Department of the WI. From 1899, Teacher became an assistant to Professor McKendrick in the Department of Physiology at the University of Glasgow. He was also pathologist to the RHSC and Assistant to Robert Muir, Coats's successor to the Chair of Pathology at the WI. From 1909, Teacher was pathologist to the GRI, and from 1911 the St Mungo (Notman) Professor of Pathology at the University of Glasgow. See also Teacher, J.H. (1900) *Catalogue of the Anatomical and Pathological Preparations of Dr. William Hunter in the Hunterian Museum* (Glasgow: James Maclehose & Sons). Teacher's M.D. thesis included fifteen photographic plates, which reveal him to be an accomplished photographer and skilled at photomicrography. See Teacher, J.H. (1903) 'On Chorionepithelioma', M.D. thesis, Special Collections Department, University of Glasgow. Teacher went on to become Senior Pathologist at the GRI from 1910, see Marshall, A.J. (1974) *A Perfunctory Description of the Building and Itinerant Staff Covering Half a Century: 1919-1970* (Glasgow: Royal Infirmary), 14.

<sup>46</sup>See for example WI Journal, Ward III, Volume XXI, 220-221, HH66/3/21. The case of A.M., who was admitted to the WI suffering from a swollen left leg. This was accompanied by three photographs of the patient's limbs. The basic anatomical features had been marked on the patient's limb in each print, with a brief labelled sketch beneath.

Teacher's first photographs appeared in Buchanan's ward journal in May 1894 and accompanied the case of R.M., who was admitted to the WI suffering from scrofuloderma of the right foot.<sup>47</sup> Teacher took two shots of the right and left aspects of R.M.'s leg while flexed, with the heel resting on a chair. His case notes recorded that the limb was dressed for a few weeks afterwards with iodoform and boracic.<sup>48</sup> On 11<sup>th</sup> June, 'Dr Buchanan today chipped off the little toe.'<sup>49</sup> Approximately one month later, however, Dr Renton 'amputated the right leg at the knee (Carden's)'.<sup>50</sup> Teacher's clinical résumé accompanied the pathology report on the amputated limb, plus copies of the two prints that had also appeared in the ward journal.<sup>51</sup>

Teacher's case notes also accompany the case of the J.M. admitted to the WI on 2<sup>nd</sup> August 1894, suffering from a rodent ulcer of the nose.<sup>52</sup> A photograph was taken to show J.M.'s head and neck in profile.<sup>53</sup> The lesion was removed and sent to the Pathology Department along with Teacher's clinical résumé, and a copy of the print, which was again included in the ward journal. The pathologist diagnosed a rodent ulcer. The patient was photographed again following the removal of the lesion, and after the wound had healed, this print was included in the ward journal. Perhaps the image of the lesion had more relevance to the pathology report.<sup>54</sup> Thus, we may be able to see the pathologist's gaze at work in

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<sup>47</sup>WI Journal for Ward III, Volume XXI, 191-192, 260, HH66/3/21.

<sup>48</sup>Ibid.

<sup>49</sup>Ibid. 192.

<sup>50</sup>Ibid. 260.

<sup>51</sup>The WI Pathology Reports, will be represented as PR, followed by the number of the report: PR 3781, P5/1/18, GUABRC.

<sup>52</sup>WI Journal for Ward III, Volume XXI, 285-286, HH66/3/21.

<sup>53</sup>The Journal entry records 'Photo taken 23/8/94' after surgery. Ibid. 286.

<sup>54</sup>PR 3822, P5/1/19.

the context of the WI pathology reports. This perhaps implies that the pathologist was only interested in images of disease, rather than those of treatment.

### ***Photographing Pathology at the Glasgow Western Infirmary***

There are two kinds of pathology reports, those that accompany specimens and, secondly, accounts of post-mortem examinations. Each of the WI pathological reports is a multi-authored work. The clinical résumé was written by the House Surgeon, beneath which the pathologist would make a note of his findings and sometimes a sketch. It appears that the specimen and the photographs travelled together from the wards to the Pathology Department.

In some instances, however, the pathologist would take his own photographs. From 1891 until 1896 a total of twenty-seven of the WI's pathological reports are accompanied by photographs. There are twenty-one illustrated specimen reports. Of these, seven reports and photographs can be cross-referenced to the corresponding ward journals. The remaining photographs included in the specimen reports were probably taken by the pathologist for inclusion in the pathological report alone.<sup>55</sup> Six of the post-mortem reports are accompanied by photographs, which were no doubt taken by the pathologist.<sup>56</sup>

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<sup>55</sup>Five of the seven examples which can be cross-referenced to the ward journals and pathological reports are the work of John H. Teacher. See for example, [33-35:118].

<sup>56</sup>Another of Teacher's contemporaries, Cuthbert Nairn contributed photographs in Buchanan's ward journals, see, for example the WI Journal, Ward III, Volume XXII, pages, 247, 249, HH66/3/22. See also WI Journal, Ward III, Volume XXIII, HH66/3/23, see pages 5 & 33 for Teacher's sequence of photographs showing the healing of a wound to the arm & page 115 for

## *Specimen Reports*

As already stated, twenty-one of the specimen reports are accompanied by photographs.<sup>57</sup> They provide details of morbid products, which range from, for example, an amputated limb to an excised tumour. The photographs included in the specimen reports are accompanied by either cropped shots of the affected body part, or images of excised tissues, or portraits of patients. I have presented the photographs in these categories in the form of chronological narratives.

### *1. Cropped Shots*

There are ten cropped body shots. These images tend to focus on the diseased body part. On the whole, these shots were taken before surgery, and tend to exclude personal visual clues to the identity of the patient. These shots date from June 1891 to January 1893 [28-30:117]; and from June 1893 to September of the following year.<sup>58</sup> [31-35:118] Cropped shots are the most common form of image to appear in both the ward journals and pathology reports.<sup>59</sup> [36-37:119]

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Naim's contribution. After Teacher left, photographs continued to feature in Buchanan's ward journals intermittently up until 1895, see for example WI Journal, Ward III, Volume XXIV, 136, HH66/3/24; and for WI Journal, Ward VIII, Volume II, page 92, HH66/8/11, which includes an advert for 'The Empress and Special Rapid Plates' from 'Ilford Photographic Company', which was evidently folded and used as a page marker.

<sup>57</sup>Ten of the specimen reports relate to Hector Clare Cameron's cases, which date from 1891-1896. Six of which are private cases, therefore they are not recorded in the ward journals. Three of George Buchanan's specimen reports are accompanied by photographs (1892-1895), plus another five, by his acting surgeon, J. Crawford Renton. The remaining specimen reports relate to the cases of Drs George Beatson, Thomas McCall Anderson and Alexander Patterson.

<sup>58</sup>The number of the photograph is presented followed by the page number in the present thesis, then the number of the pathology report, title of disease, date, and finally the GUABRC Reference. [28:117] Tumour upper end of tibia (1891) PR260, P5/1/13; [29:117] Scrofuloderma (1892) PR 3203, P5/1/6; [30:117] Syphilitic disease of leg (1893) PR3227, P5/1/16; [31: 118] Myxoma of subcutaneous tissue of leg (1893) PR3377, P5/1/17; [32:118] Diabetes, gangrene, ulcers of foot (1894) PR3760, P5/1/18; [33:118] Scrofuloderma (1894) PR3855, P5/1/19; [34:118]

In 1891 the first photograph appeared in the WI pathology reports.<sup>60</sup> This cropped shot accompanied the case of H.C. admitted to Ward XX on 25<sup>th</sup> May, suffering from a tumour of the upper end of the tibia. [28:117] The shot was taken of the patient's leg while resting on a bed. A growth is clearly visible on the margin of the limb, below the knee. An almost identical print appears opposite the page of the entry in Hector Clare Cameron's ward journal. The entry records that on 15<sup>th</sup> May, H.C. was admitted to the WI. At some point during the next ten days the diseased limb was photographed. The journal entry goes on to record that on 25<sup>th</sup> May, the date of the pathological report, the:

Tumour was today cut down on and chiselled off close to the bone. The tibia was then found to be affected deeper. Upon which Dr Cameron gouged out about ½" all round the bone removed being as hard as ivory right down to the medulla, the growth being found to be springing from the shaft ... On microscopic examination it is found to be a myxosarcoma.<sup>61</sup>

This photograph was probably the work of Thomas Forrest, House Surgeon to Cameron.<sup>62</sup>

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Epithelioma of leg (1894) PR3819, P5/1/18; [35:118] Scrofuloderma of foot and leg (1894) PR3781, P5/1/8; [36:119] Epithelioma over back of hand (1892) PR3122, P5/1/20; [37:119] Gummata of fore-upper arm (1895) PR4151, P5/1/20.

<sup>59</sup>The exceptions are [31-32:123] which appear in the WI pathology reports alone. Also in 1891, one of the WI pathology reports records that Dr George Beatson's patients, admitted to Ward XV, on 18<sup>th</sup> September, had been photographed by 'Mr White, Jamaica St.'

<sup>60</sup>PR 2670, Reference P5/1/13. WI Journal Ward XX, Volume XIV, pages 3 to 4, 10 & 31, HH66/20/15. The frontispiece records that around this period Thos. Forrest was one of Cameron's Resident Assistants. Forrest may, therefore, be the author of the ward journal entry and the photographer. The print in the pathological report measures 11.5 x 8 centimeters. The print in the ward journal has been cut down to a few millimeters less.

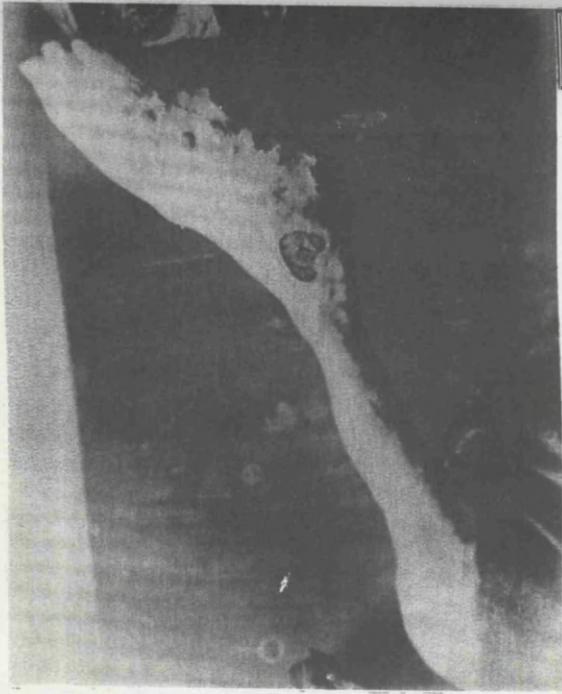
<sup>61</sup>Ibid.10.

<sup>62</sup>Cameron was Visiting Surgeon to Wards XV, XVII & XX of the WI. Forrest's photographs have an aesthetic quality, primarily because the photograph is printed using an oval shaped mask as a frame for the image. See for example, the case of A.K., reported in the WI Ward Journal, XX, pages 125, 137, 154, HH66/20/15; WI Journal, Ward XX, Volume XV, HH66/20/15, 2-3, 10, 31. When Teacher left Buchanan's wards, the photographic mantle was taken up by Resident Assistants Cuthbert Nairn and John M. Cowan on Ward XVII during the late 1890s.

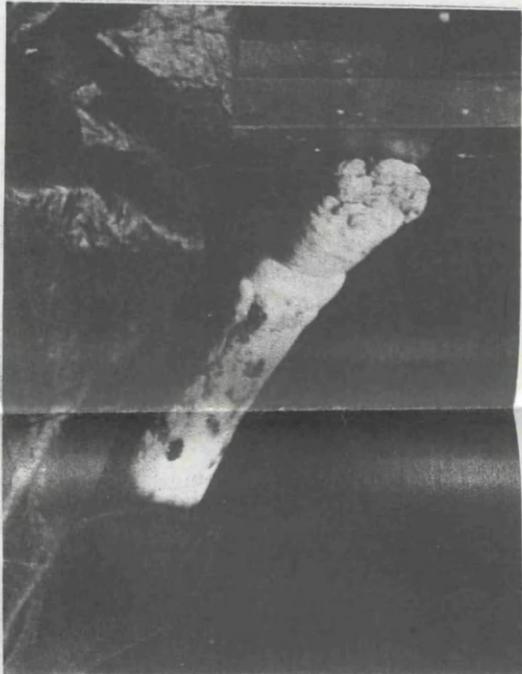
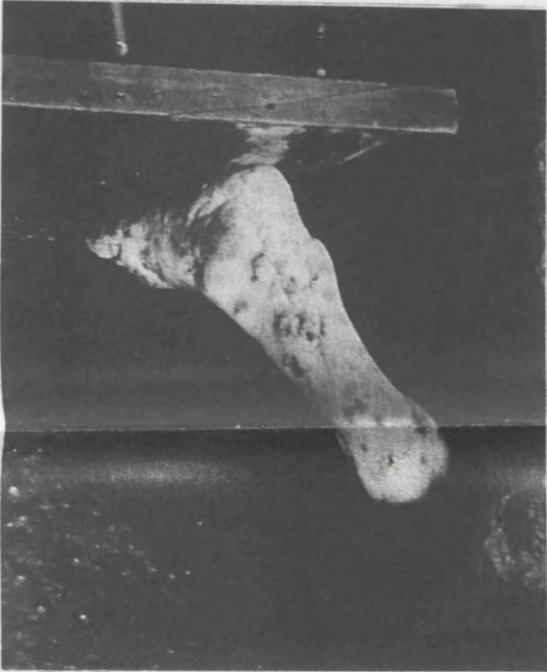
The pathological report is dominated by a detailed description of the microscopic findings of the tumour. Rutherford made a sketch in the margin of the report to show a section of the limb where the tumour tissue was ‘sharply demarcated from bone’, something the camera could not have recorded.<sup>63</sup> When the tumour was sent to the pathologist on 25<sup>th</sup> May, it may have been accompanied by the brief clinical *résumé* and the photograph.

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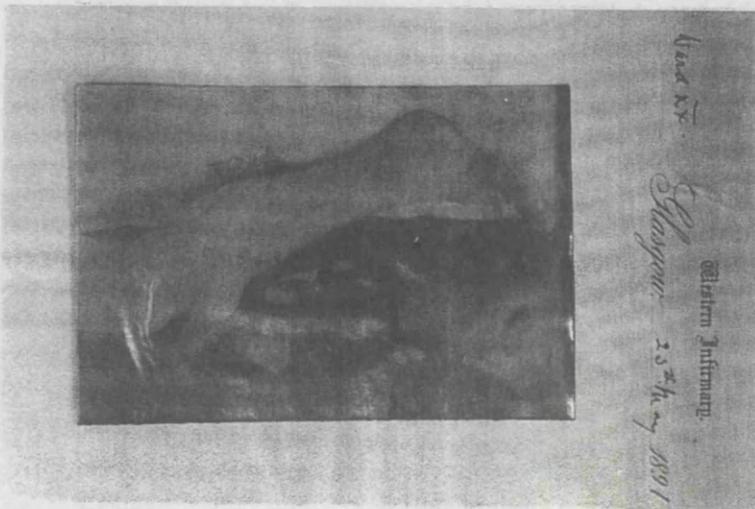
<sup>63</sup>PR 2670.



30



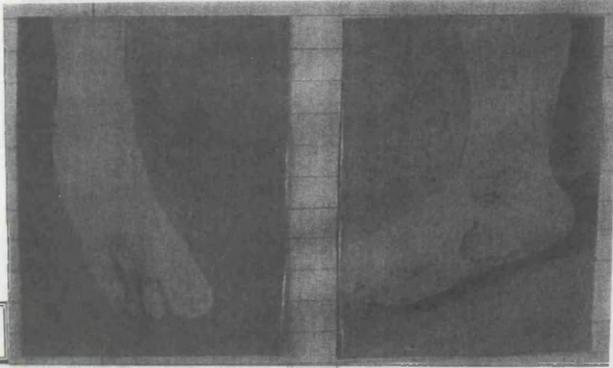
29



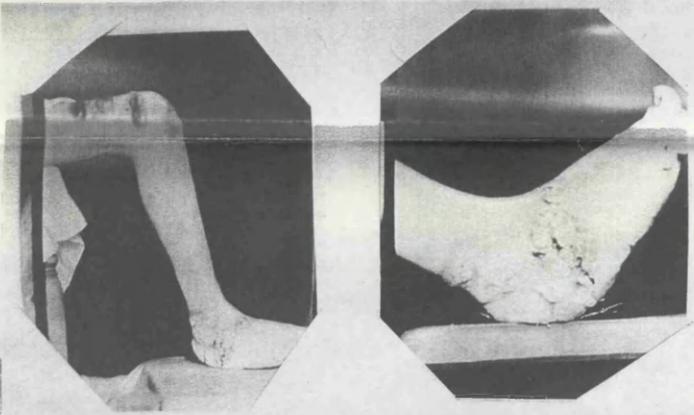
28

Handy  
Chicago  
25th May 1891

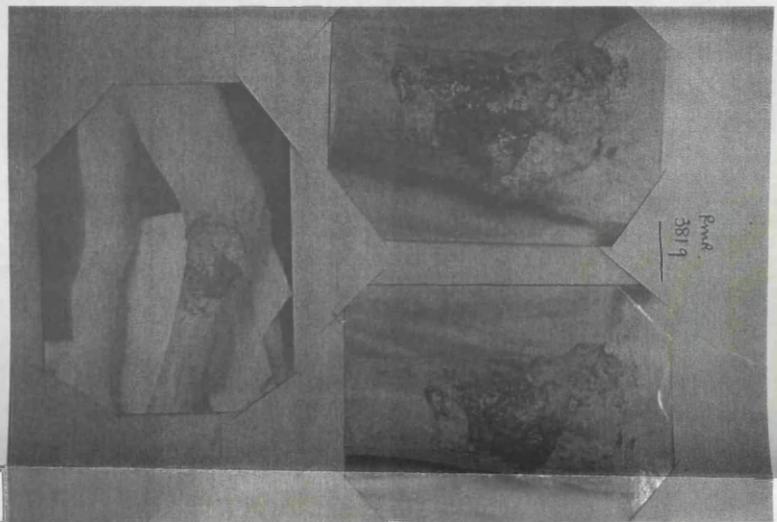
William Johnson



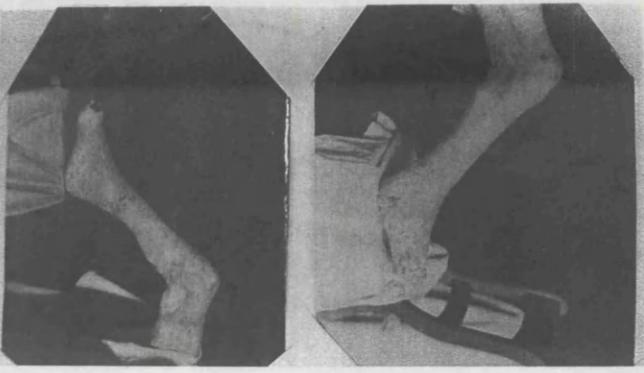
32



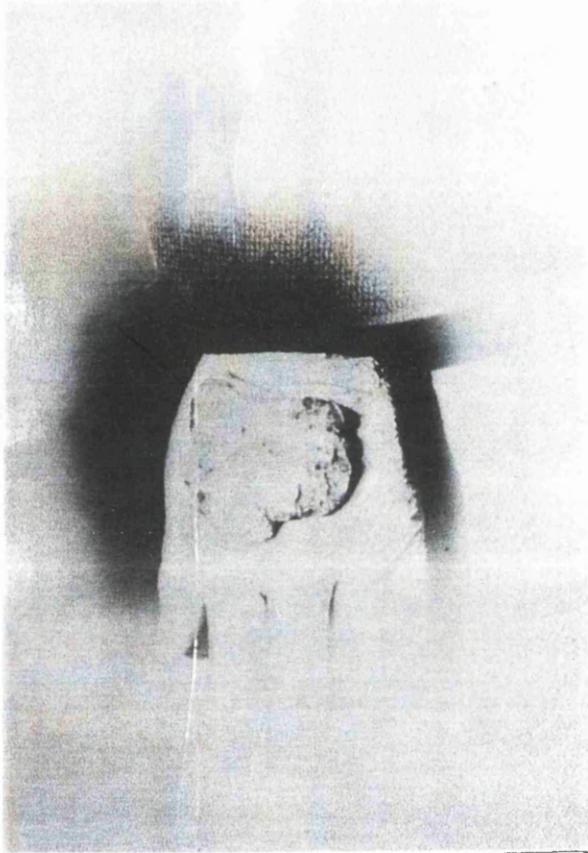
33



34



35



36



37

Photographs of body parts and tissues accompanied reports when samples were sent to the pathologist for elaboration.<sup>64</sup> In a few examples the extent and location of a tumour has been commented upon. This contrasts with the ward journals, in which the writer more frequently directs the reader's attention to the photograph. For example, a case of Scrofuloderma was accompanied by two photographs in both the ward journal and the pathological report.<sup>65</sup>[29:117] The borders of the prints in the ward journal are blurred during exposure, a technique called the vignette. The images are referred to in the ward journal entry only when describing the Scrofuloderma patches which 'discharge pus freely'.<sup>66</sup> These prints, plus two from a case of Syphilitic disease of the leg [30:117], also from 1892, show the patient's diseased limb framed in dark material, which visually isolates it from the body. In both instances the diseased limbs were amputated. In one of these examples [30:117] the corresponding notes in the ward journal record that the photographs were of 'the removed leg.'<sup>67</sup>

Lewis R. Sutherland became one of Coats' assistants at the Pathology Department of the WI in 1892.<sup>68</sup> Of the twenty-seven pathological reports accompanied by photographs, seventeen of these include Sutherland's handwriting. Thus, suggesting that Sutherland may have been responsible for most of the photographs to appear in the WI pathological reports from 1892 until 1896.

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<sup>64</sup>PR 2670, 3844, 415; PR 3819, 3227.

<sup>65</sup>PR 3855.

<sup>66</sup>Ibid.

<sup>67</sup>WI Journal, Ward XVII, Volume XVI, 227, HH66/17/16.

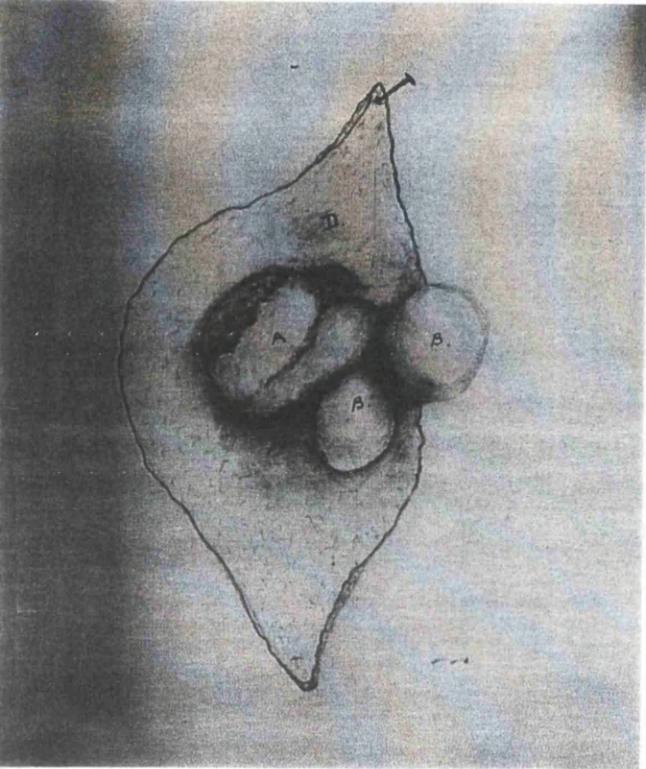
<sup>68</sup>When Coats became ill, Sutherland was his replacement.

## *2. Excised Tissues*

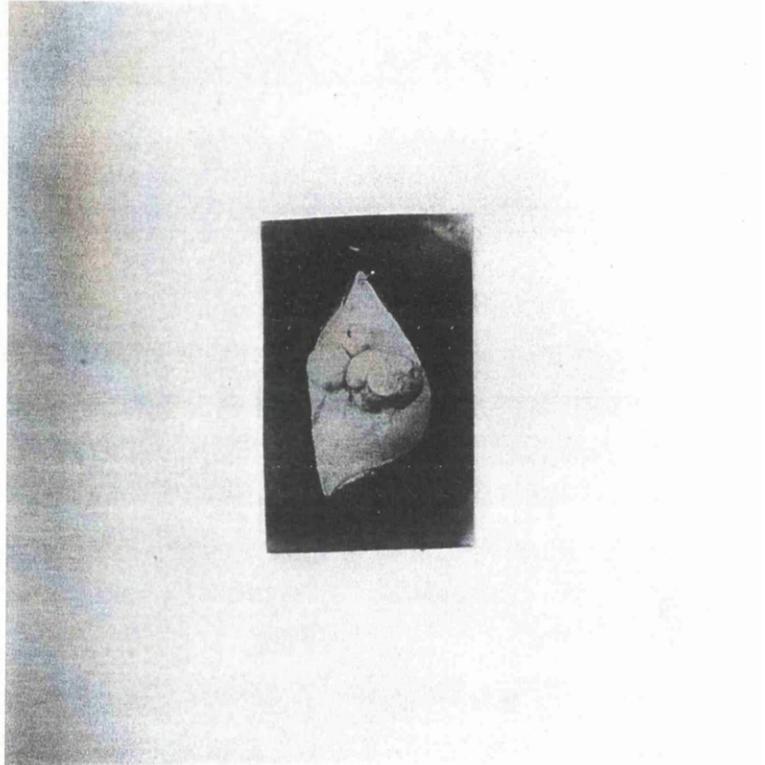
Sutherland's first pathological report to include a photograph appeared in his account of a specimen of spindle-celled Sarcoma of the skin on 10<sup>th</sup> September 1892. There is a notable lack of personal details, which appear to be a standard in the pathology reports concerning private patients. In this particular case, there are no details concerning the patient other than he/she was under the care of Dr Macartney.<sup>69</sup> Sutherland records that 'an irregularly elliptical piece of skin measuring 4½" x 2¾" removed apparently above the muscular layer ... [with] several pale smooth rounded bossy masses ... was unfortunately cut into before being submitted for examination'.

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<sup>69</sup>Although private cases were entered in the Pathology Reports, they are sometimes titled 'Private'. In this example, they are devoid of the patient's details, such as the name and age.



38



39

A tiny photograph of the specimen, which is hung by a pin, was included in the report. [39:122] Evidently, Sutherland could not make an enlargement of the print from the negative, so he made a larger scale pencil drawing from the small print. [38:122] This increase in size allowed him to label each part of the drawing adequately and remark on each of these details in the accompanying text. We are perhaps reminded of some of the technical inadequacies of the black and white and sepia toned images when Sutherland describes figure 'C' as an 'ovoid mass of bright pink colour about the size of a bean'. This image is worthy of special note because it is the first amongst the WI pathological reports that serves a primarily pathological function, perhaps taken in the pathology room rather than deriving from the context of the ward.

Removed diseased organs and large tumours, for instance, because of their size or weight, were placed on benches, tables, etc. when photographed. Smaller pieces of diseased tissue were pinned or strung up for display in front of the camera lens.<sup>70</sup> [40-44:125] These photographs date from June 1883 to May 1885.

As previously stated, photographs did not necessarily replace sketches and tracings in the WI pathological reports.<sup>71</sup> The author of the report would often make a sketch in the margin of the report; for example, for the purposes of clarity, rather than adding legends to the original photographic print.

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<sup>70</sup>[40:125] Tumour of the labium (1893) PR3363, P5/1/17; [41:125] Pigmented sarcoma of cheek (1892), PR3394, P5/1/17; [42:125] Epithelioma of dermoid cyst of buttock (1893) PR3390, P5/1/17; [43:125] Adeno-Sarcoma, kidney (1896), PR4492, P5/1/21; [44:125] Tumour in ileum (1896) PR4555, P5/1/22.



### 3. Portraits

There are total of six photographic portraits accompanying the WI specimen reports, five are presented here chronologically.<sup>72</sup> [45-48:127] The examples shown date from October 1892 to August 1894.<sup>73</sup> Only one example appeared in both the pathology report and the WI ward journal, but only in the latter context was a follow up shot included.<sup>74</sup> [49-50:128]

The portraits vary from simple head and shoulders to those taken from the waist upwards, all against black or dark-coloured backgrounds. One can see that the patient's pose was arranged by the photographer. It seems likely that the photographs were taken in the clinical context, such as the ward, but they never featured in the ward journal. For example, in the photograph used by Jacyna in his paper entitled 'The Laboratory and The Clinic', the patient-sitter is holding her diseased breast towards the camera.<sup>75</sup> [48:127] Inevitably this distorted the shape of the breast and, therefore, the author of the report made a circular sketch onto which he marked the location and measurements of the ulcer. Similarly, in another case, the patient was sat up in bed and white sheets were draped around her waist and shoulder in order to frame and focus the viewer's eye on her

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<sup>71</sup>See PR4555, which includes a tracing of the brain and a photograph of the ileum.

<sup>72</sup>[45:127] Skin mass (1892) PR3150, P5/1/15; [46:127] Epithelioma of lower lip (1893) PR3411, P1/5/17; [47:127] Paget's disease of nipple (1893) PR3527, P5/1/17; [48:127] Cancerous ulcer of breast (1894) PR3789, P5/1/17.

<sup>73</sup>The sixth example dates to May 1896, see PR4142, Dr McCall Anderson's post-mortem report dated May 1895, P5/1/120.

<sup>74</sup>[49:128] Rodent ulcer side of nose (1894), PR3822, P5/1/19, and see also [50:128] in the WI Journal for Ward III, 1894, 286, HH66/3/21.

<sup>75</sup>See PR 3789. See Jacyna, L.S. (1988) 'The Laboratory and the Clinic', 'Fig. 2', page 402.

Small ridge of cartilage  
 \* with a small portion of  
 its surface covered by an opa-  
 que tissue of the section clear



45

glands under right ear.  
 in Kernung r. atrophic glands

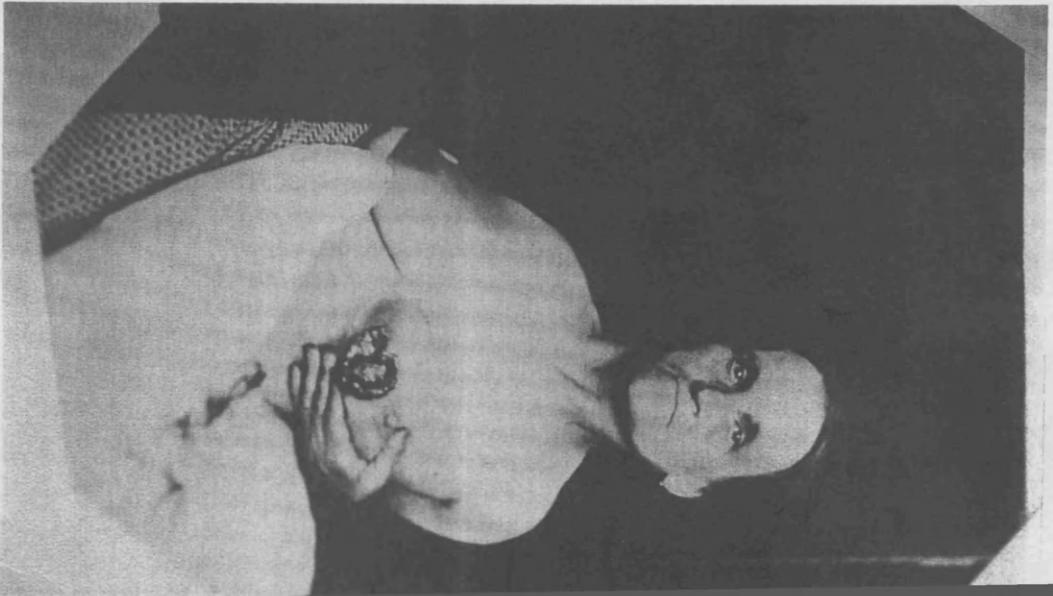


46

Dr. ...  
 3527 (cont'd)  
 PATHOLOGICAL SUMMARY.



47

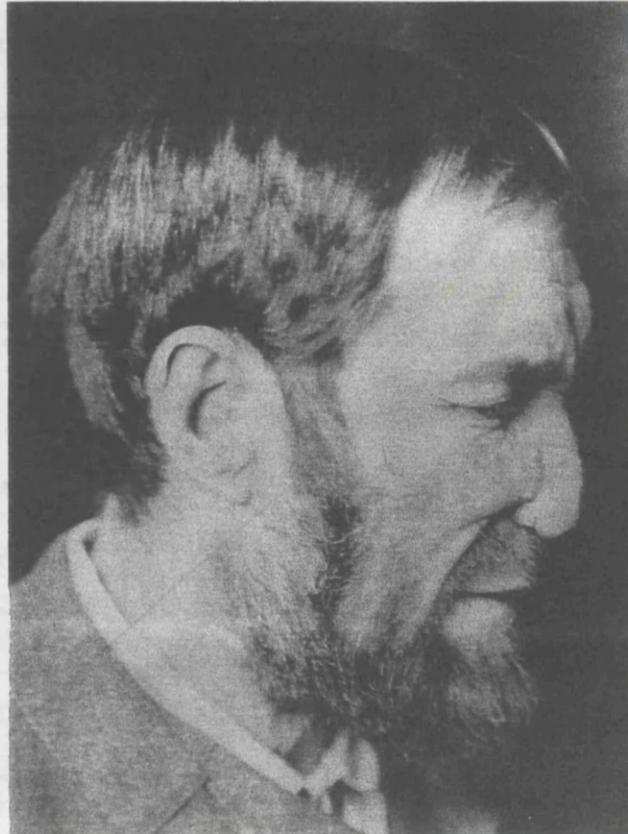


48

dissected breast. On reading the report it is evident that the photograph was taken before a portion of the ulcer was removed for microscopic examination by the pathologist. Photographs were either stuck onto the page, and then the text was written around the image, or more commonly the prints were mounted onto



49



50

Fig. 128. The patient's photograph.  
See for details, in the report, p. 128.

diseased breast.<sup>76</sup> On reading the report it is evident that the photograph was taken before a portion of the ulcer was removed for microscopic examination by the pathologist. Photographs were either stuck onto the page, and then the text was written around the image, or more commonly the prints were mounted onto headed notepaper, and then attached into the journal after the text.

Most portraits appear to have been taken solely for inclusion in the pathological reports, even though they appear to have been taken in either the ward or a reception room. For example compare the background details of some of the photographs. [35: 118; 45:127] In April, 1896, the last photograph was included in a WI pathological report. From that time onward they were replaced by pre-printed and perforated 'stamps' of the upper torso and brain, on which areas of pathological interest were marked.<sup>77</sup>

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<sup>76</sup>PR 3789, 'Paget's disease of the nipple'.

<sup>77</sup>See for example PR5496 and P5/1/26.

### ***Post-Mortem Reports***

The WI Post-mortem reports are, more often than not, accompanied by photographs of diseased organs. Most specimens were placed on sheets, or dissected and displayed in front of the camera lens. The photographs date from October 1892 to April 1896.<sup>78</sup>[51-53:131]

A case of Xeroderma Pigmentosa, under the care of Thomas McCall Anderson, was recorded in the WI pathological reports, accompanied by two photographs taken on the patient's death in September 1892. [55-56:132] This is the only WI post-mortem report to be accompanied by photographs of a cadaver. Anderson had reported on this case in the *BMJ* a few years earlier.<sup>79</sup> [54:132] The article was accompanied by a full-page coloured lithograph of the patient from 1889. The photographs from the pathological report date to 1892. They show the patient's face ravaged by disease, and could not contrast more with the coloured lithographic plate.

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<sup>78</sup>[51:131] Sigmoid flexus (1892) PR3114, P5/1/15; [52:131] Calcareous infiltration of pericardium (1893) PR3428, P5/1/22; [53:131]; Tumour of ileum (1896), PR4555, P5/1/22.

<sup>79</sup>See PR 3127, P5/1/15 and McCall Anderson, T. (1889) 'Note on a Rare form of Skin Disease: Xeroderma Pigmentosum', *British Medical Journal*, I: 1284-1285. Includes a full-page lithograph by Maclure & Macdonald of Glasgow.



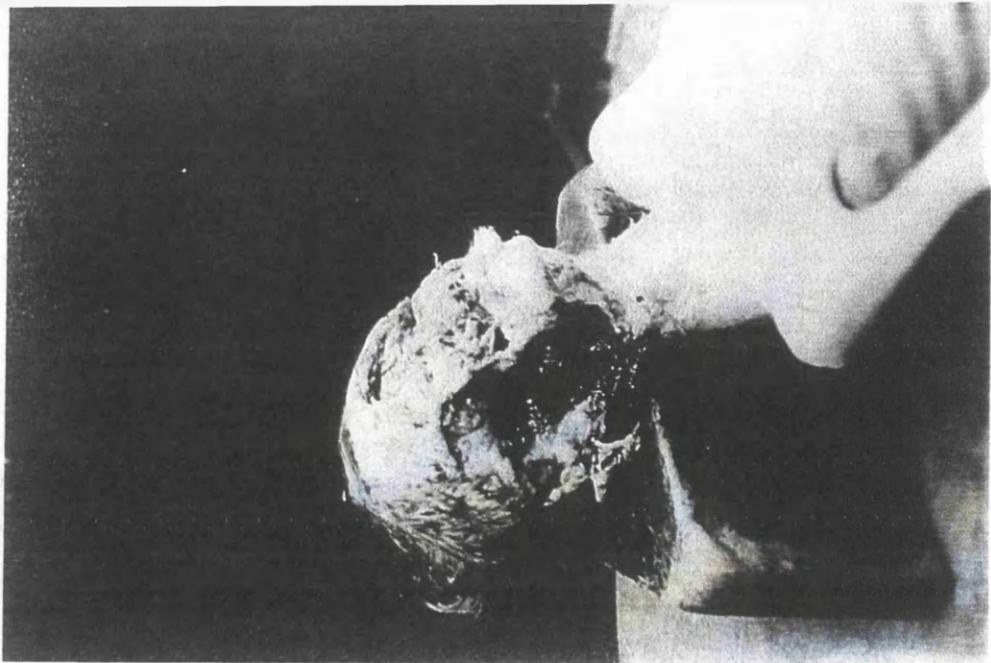
53



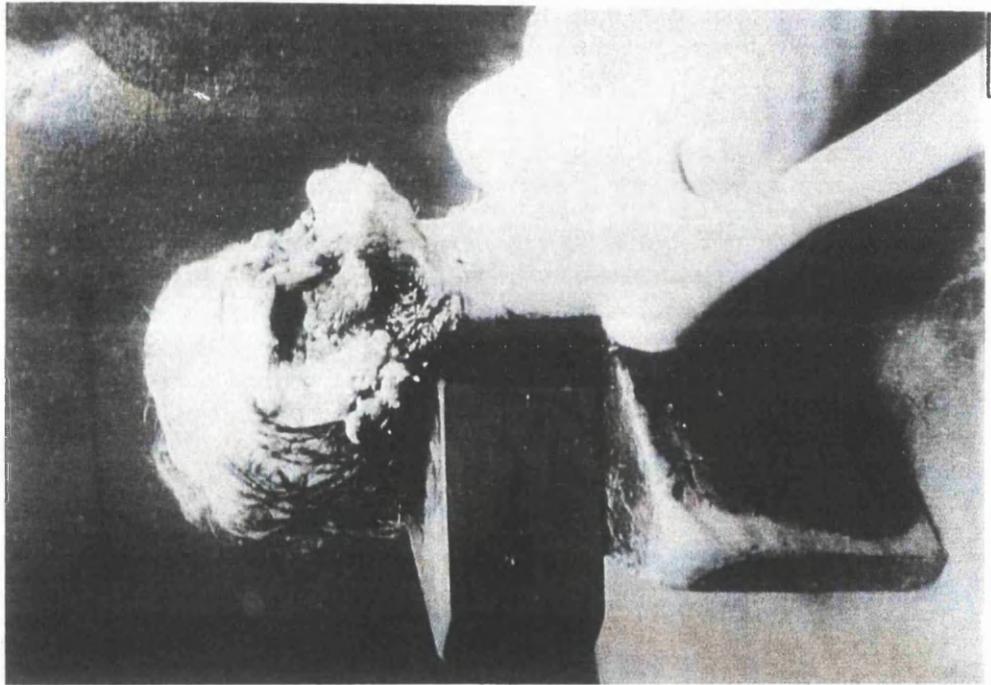
52



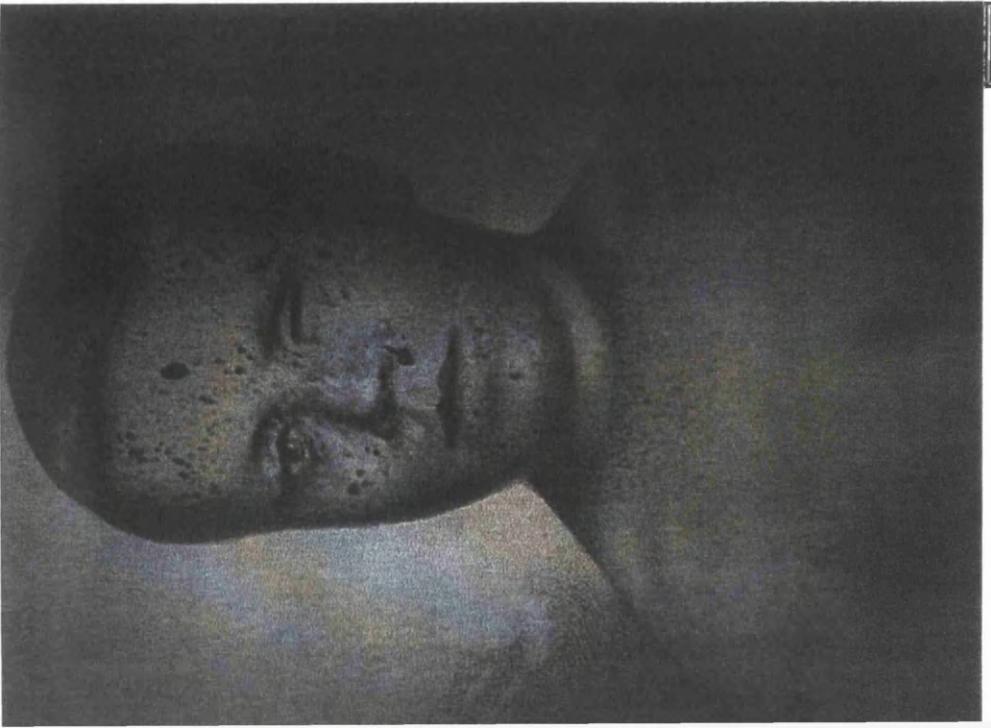
51



5



55



54

## *Royal Hospital for Sick Children, Glasgow*

### *Photographs and Case Notes at the RHSC*

The RHSC was built on Glasgow's Garnethill, and opened in December 1882.<sup>80</sup> By the 1890s, photographs became a regular feature of the RHSC's ward journals and pathology reports.<sup>81</sup> The commitment shown by some medical men to the integration of photographs into case notes and reports may have been connected to the RHSC's teaching and research culture.<sup>82</sup> It was not until November 1886, according to a ledger, that the RHSC invested in 'Photo Apparatus'.<sup>83</sup> This shortcoming is evidenced by the fact that on 24<sup>th</sup> September, the previous year, T. & R. Annan had taken a photograph of a patient at a cost of '£00.05.00'.<sup>84</sup> Over the next four years, from 1886 to 1890, the hospital continued to purchase 'photo plates' and 'photo chemicals' from G. Mason & Co.<sup>85</sup> Although photographic equipment was available, its use was probably still at the discretion of the individual surgeon and physician.

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<sup>80</sup>Robertson, E. (1972) *The Yorkhill Story: The History of The Royal Hospital for Sick Children, Glasgow* (Glasgow: Yorkhill & Associated Hospitals Board of Management), 37.

<sup>81</sup>The RHSC Pathological Reports are currently held in the RHSC Pathology Department, and access to them is restricted.

<sup>82</sup>1<sup>st</sup> Ledger, RHSC, YH4/1/1. The entry dated 5 January 1883 records that 'students for clinical instruction be admitted at the three terms of 1<sup>st</sup> Feb., 1<sup>st</sup> May, 1<sup>st</sup> Nov. Fee for the Twelve months £1.1/-. That they attend on the Visiting Days in company of the Honorary Visiting Staff.'

<sup>83</sup>1<sup>st</sup> Ledger, RHSC, 49. This was purchased from Geo. Mason & Co, at a cost of '£10.15.10.'

<sup>84</sup>Ibid. 105. T. & R. Annan have been discussed in Chapter 2.

<sup>85</sup>Ibid. Page 182, '25<sup>th</sup> June 1889, Geo. Mason & Co, photo plates £0.3.11.08', page 194, '24<sup>th</sup> September, 1890, Geo. Mason & Co., Photo Chemicals £03.03.06.'

*Dr William Macewen*

From the RHSC's opening in January 1883, Dr William Macewen was Honorary Visiting Surgeon, in charge of Ward II.<sup>86</sup> The first volume of the ward journal contains case notes accompanied by temperature charts and photographs. The first entry relates to the case of J.M, admitted to the RHSC on 9<sup>th</sup> March 1883, suffering from double talipes varus.<sup>87</sup> The entry records that on:

April 5<sup>th</sup> Dr Macewen removed from both feet the astragalus that of the right in pieces and of the left foot intact, which was found to be bent. The wound was left open and then dressed in the usual way. April 7<sup>th</sup> The wounds were closed and drainage tubes put in, buttons were used. Dressed in usual way.<sup>88</sup>

Two photographs were taken following J.M.'s recovery, showing the front and side views of the patient's limbs.<sup>89</sup> In between each print is a completed temperature chart, on which is marked the dates of the operation, and the dressing of the limbs.<sup>90</sup> This is the first example I have found in which Macewen used his own clinical photographs in a hospital ward journal.

The second case entered in the ward journal that is accompanied by photographs relates to T.F. admitted to the RHSC with a diseased elbow joint.<sup>91</sup>[57:135] On 'April 26<sup>th</sup> [1883] a sub periosteal excision of the diseased

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<sup>86</sup>Ward II, Surgical, Volume I, runs from January 1883 to January 1886, YH7/2/1.

<sup>87</sup>Ibid. 44-46.

<sup>88</sup>Ibid.

<sup>89</sup>The print at the top of the page shows a front view of J.M.'s limbs; the lower image is taken from the side.

<sup>90</sup>Ibid. opposite page 44.

<sup>91</sup>Ibid. 62-63.



joint was performed, the wound was stuffed with gauze and iodoform, and dressed in the usual way and put up in a splint'.<sup>92</sup> By 8<sup>th</sup> August, T.F. was 'discharged with a splendid arm, "Vide Photo."' <sup>93</sup> Opposite the case notes, a photograph of T.F. has been pasted in the journal and beneath the image is a completed temperature chart. The boy is shown standing, in profile, without his shirt, while flexing his right arm, bringing the forearm to his chest, and putting his hand beneath his chin.<sup>94</sup>

The third example of a photograph accompanying one of Macewen's cases can be found in Volume III of the ward journal.<sup>95</sup> The entry records that on 27<sup>th</sup> March, 1889, J.B. was admitted to the RHSC, suffering from a knock-knee and a bow leg.<sup>96</sup> Before 1<sup>st</sup> April, 'Dr Macewen performed osteotomy on the right leg.'<sup>97</sup> The entry goes on to record that on 'June 12 left the hospital well to return to have the bow-leg operated on.'<sup>98</sup>[58:137]

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<sup>92</sup>Ibid. 62.

<sup>93</sup>Ibid. 63.

<sup>94</sup>The print is sepia in colour and measures 9 x 5 centimeters. The top and bottom right-handed corners of the print are rounded, suggesting that the image was produced on a pre-cut paper.

<sup>95</sup>Ward III, Surgical, Volume III, runs from August 1888 to October 1889, YH2/2/3. The case notes and photographs appear on page 302.

<sup>96</sup>Ibid.

<sup>97</sup>Ibid. The image is a close-up of J.B.'s naked limbs. She was photographed standing in front of a dark background. The print is sepia in colour, and was printed on pre-cut paper. The print size, and its rounded corners, are reminiscent of the *carte-de-visite*.

<sup>98</sup>Ibid. There is one more case, which may also be attributed to Macewen in the Journal for Ward III, Volume III, 288, YH7/2/3. It records the case of H.G., admitted to the RHSC in March showing the patient's head and shoulders before treatment, from the front and side aspects.

Result of  
Simon KK & Bowl  
  
April 5  
St. Macclesfield  
at St. Macclesfield

The practice of including photographs in the RHSC surgical journals was continued by Macewen's successors, Dr T. Kennedy Dalziel and Dr Robert H. Parry, Visiting Surgeons to the RHSC from 1894.<sup>99</sup> As a medical student at the GRI medical school, Parry was strongly influenced by William Macewen.<sup>100</sup> Like his mentor, Parry was 'a surgeon of delicacy in manipulation and precision in technique controlled by exact anatomy and sound pathology ... he was no specialist – shying away only from brain surgery [unlike Macewen!] and becoming expert in neurological surgery of the limbs and in all that pertained to orthopaedic treatment.'<sup>101</sup> Parry continued the practice, begun by Macewen, of including photographs in the journal for Ward II at the RHSC.<sup>102</sup>

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<sup>99</sup>See 'Obituary, R.H. Parry', (1943) *Glasgow Medical Journal*, 139: 47-50. Parry studied under Macewen at the GRI. On Macewen's death in 1924, Parry took over his teaching until Archibald Young was appointed as Regius Professor of Surgery. Physicians were also keen on including photographs in their ward journals, too. Dr Samson Gemmell, physician to the RHSC, for example also included photographs in his ward journals, see, for example, the Journal for Ward I, Volume IX, September 1889-March 1890, YH7/1/9.

<sup>100</sup>Robertson, *The Yorkhill Story*, 76.

<sup>101</sup>Ibid.

<sup>102</sup>Some of these photographs were the work of Edington, and T.K. Dalziel. Dalziel's work was discussed briefly in the previous chapter.

*Dr George Henry Edington*

Dr George Henry Edington (1870-1943) became one of Macewen's House Surgeons on Ward II of the RHSC in April, 1893.<sup>103</sup> Early the following year Edington began taking photographs that were included in the ward journal.<sup>104</sup> His first photograph accompanied the case of A.A. admitted to the RHSC with a history of measles and a discharge from the left ear.<sup>105</sup> [59-61:140; 62-63:141] In the account of the examination of the patient, the writer draws attention to the fact that 'As seen in photo. left ear displaced in a typical way.'<sup>106</sup> The photograph was pasted alongside the case notes; beneath which Edington wrote his initials, 'G.H.E', thus asserting his authorship, as Sutherland had at the WI.<sup>107</sup> He continued to take photographs for inclusion in the journal for Ward II until early in 1895.

Edington was also House Surgeon to Ward 3 from 1894, when Parry had taken over from Macewen.<sup>108</sup> These prints in the Journal for Ward III

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<sup>103</sup>See 'Obituary, George Henry Edington', (1943) *Glasgow Medical Journal* 22: 123-127. From 1892, Edington was one of Hector Clare Cameron's Resident Surgeons on Ward XVII of the WI, see for example the WI Journal, Ward XVII, Volume 16, H66/17/16.

<sup>104</sup>Ward II, Surgical, Volume V, runs from January 1890 to March 1895, YH7/2/5.

<sup>105</sup>All the following photographs are found in the RHSC Journal, Ward II, Volume V, YH7/2/5. The number of the photograph is followed by the page number in the thesis, a description of the disease and the year, [59:140] Discharge from left ear (1894); [60:140] History of rickety legs (1894); [61:140] Tumour base of spine (1894); [62:141] Loss of power in hands (1894); [63:141] Talipes (1894).

<sup>106</sup>Ibid., 115.

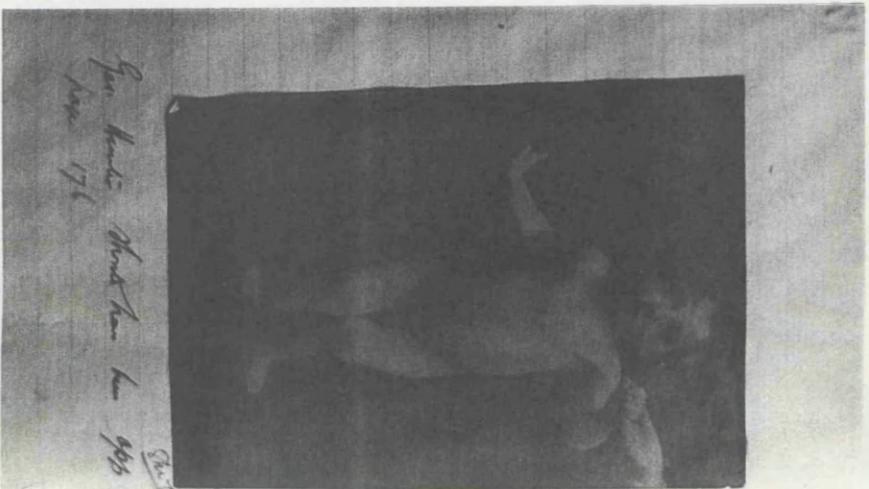
<sup>107</sup>Edington was not unique in signing his initials between each photograph. As we have seen, this form of 'authorship' was also practised by the pathologist, Lewis R. Sutherland. Some of Edington's photographs were accompanied by pre-printed diagrams, see Journal, Ward II, Volume V. 214-215.

<sup>108</sup>Hector Clare Cameron had been Extra Honorary Surgeon for Ward III from the end of 1883



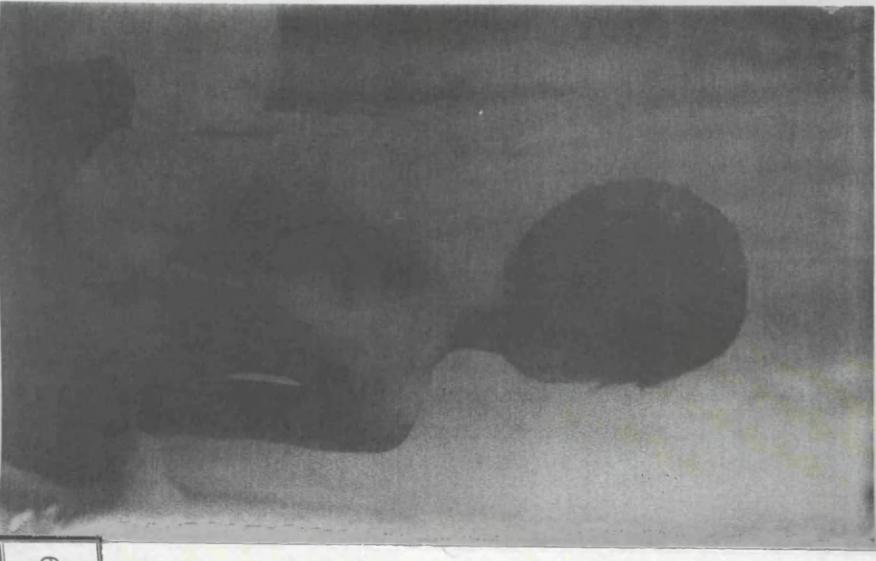
*S.H.S.*

59

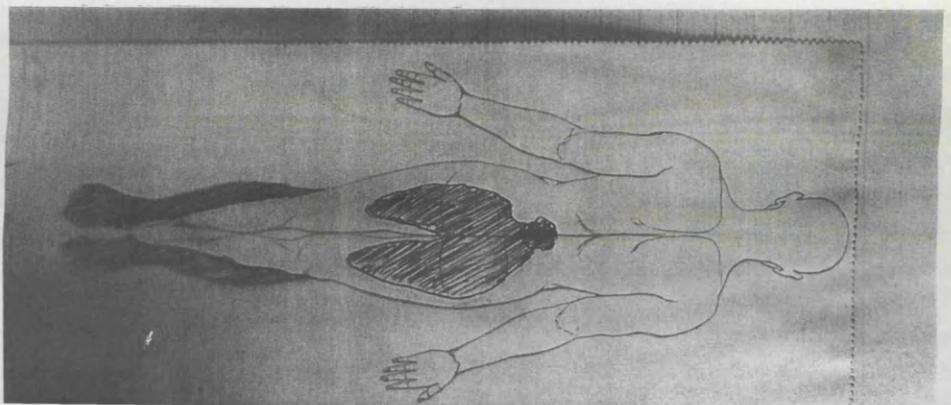


*From the chest  
muscles in 1911*

60

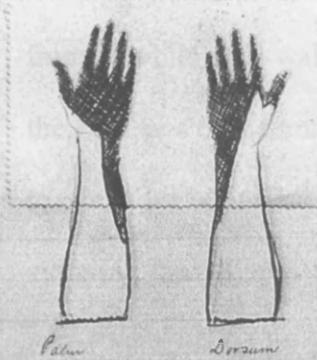


61

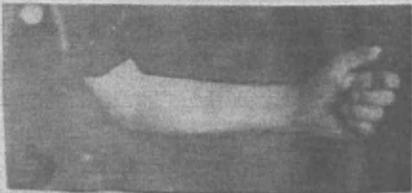


140

however, show a greater variety of photographic techniques such as the use of the vignette, and photographing the same patient from two different angles on one negative<sup>100</sup> [64-67:143; 68:144]

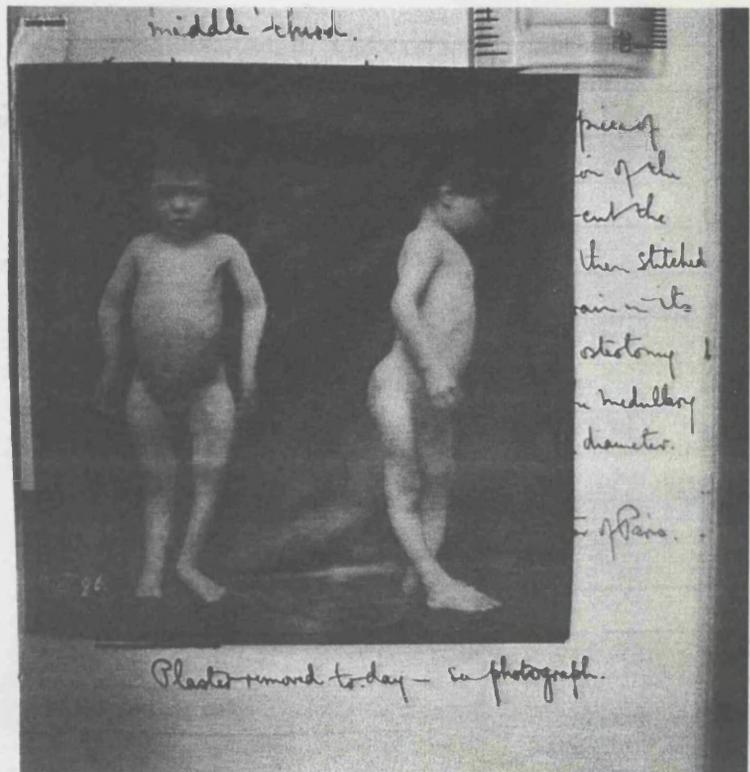


\* an analgesic area on the dorsal & palmar surfaces of the hand & lower part of the forearm as shown in the above diagram. Over this area of cutaneous paresthesia there would appear to be a more or less atrophic condition of the skin which appears more glossy. So far as has yet been ascertained there is no vaso-motor disturbance in this hand.



It has been noticed since that the hand has a tendency to become colder than the other.

62



pieces of  
in of the  
cut the  
then stitched  
rain into  
osteotomy &  
medullary  
diameter.  
to Paris.

63

however, show a greater variety of photographic techniques such as the use of the vignette, and photographing the same patient from two different angles on one negative.<sup>109</sup> [64-67:143; 68:144]

Edington seems to have made full use of the photographic facilities at the RHSC.<sup>110</sup> He photographed patients while they were lying in bed, standing in front of white tiled walls, etc. His case notes often draw the reader's attention to the existence of the image, but also to specific details within it. For example, next to one of his photographs taken of a patient admitted to the RHSC 18<sup>th</sup> July, 1893, suffering from Lupus of the face, he wrote: 'The distribution of the affection is better appreciated by a look at the accompanying photograph than by words of explanation.'<sup>111</sup> [64:143]

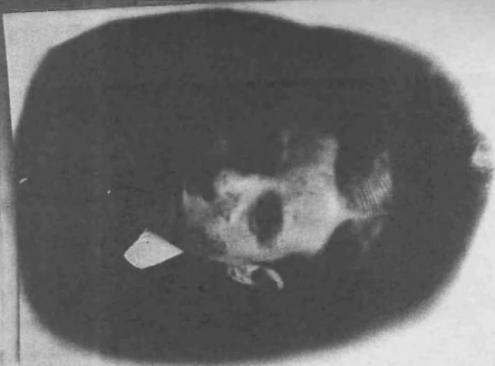
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until 1894. He was then replaced by Dr T.K. Dalziel and Dr. Fleming.

<sup>109</sup>Ward III, Surgical, Volume IV, YH7/3/4: see the following photographs, followed by the page number in the ward journal, [64:143] Lupus (1893); [65:143] Morbus coxae, excision, (1894); [66:143] Bandy legs, (1895); [67:143] Double genu valgum, (1897); [68:144] Swelling of knee, (1898). For the drawing on the patient's body see Journal for Ward III, Volume IX, YH7/3/9. Two exposures on one plate is achieved by exposing one half of the plate, while covering the other, and then exposing the other side, while the previously exposed side is protected from re-exposure, see Journal for Ward III, Volume VII, 51.

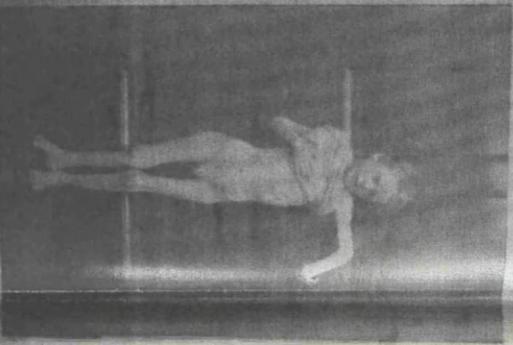
<sup>110</sup>No darkroom is visible on the plans for the RHSC.

<sup>111</sup>Royal Hospital for Sick Children, Ward III, Volume IV, 46-47, YH7/3/4. Edington, G.H. (1894) 'Defective Development of Fore-Arm bones, Associated with Double Talipes Equino-Varus; Mental Weakness', *Glasgow Medical Journal* 53: 390-392. The original photograph published in the article appears in the RHSC Journal for Ward III, Volume IV, 153. During the late 1890's Edington became an assistant to the Regius Professor of Clinical Surgery, Hector Clare Cameron at the WI. From 1902, Edington became one of the Editors of the *Glasgow Medical Journal*.



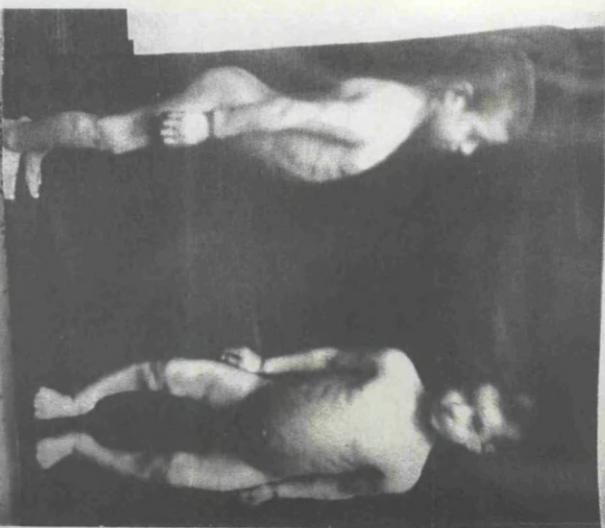
*S.H.C.*

64



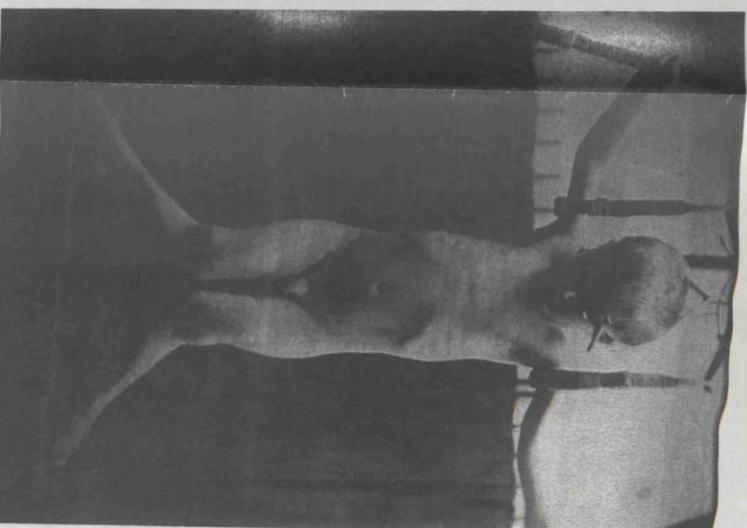
*S.H.C.*

65



*Sp the face muscles that get  
in the  
muscles*

66



67

Some of Edington's photographs of pathological findings, such as excised diseased tissues featured in his published journal and pathological report.<sup>112</sup> He also used some other photographs of tissues for publication purposes.<sup>113</sup>

Photographs were used to serve a diagnostic function, even if only a

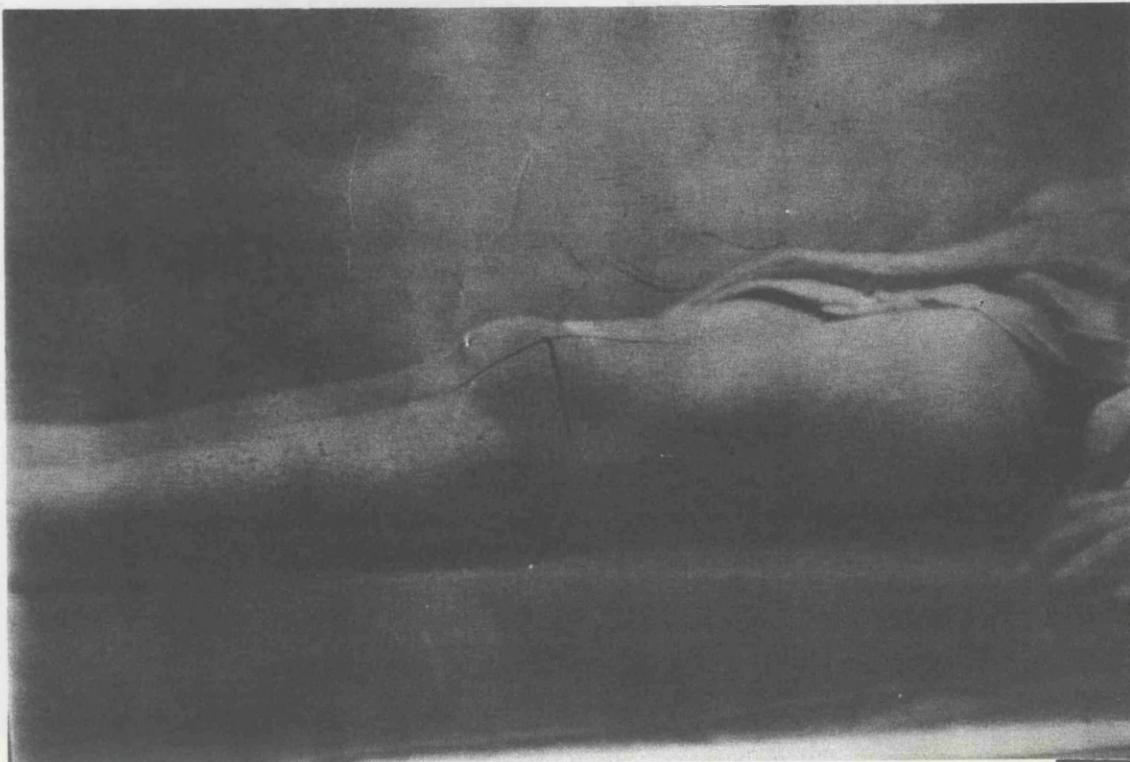


Figure 1.1. A photograph providing a clear example of the 'status' and course

68

<sup>112</sup>See, for example, *Edington Journal*, Ward II, Volume V, 180; see also RHSC Pathological Reports, Volume 1.

<sup>113</sup>Edington, 'On the Ossification of the Fore-Arm Bones', 390-392.

<sup>114</sup>The significance of Edington's eugenics was discussed in Chapter Four.

<sup>115</sup>RHSC, *Edington Journal*, Ward II, Report No. 231.

<sup>116</sup>Edington, *Edington Journal*, Pathological Reports, P5/L/20, opposite Page 407B.

<sup>117</sup>See, *Edington Journal*, which was used to encourage individuals to donate money to the RHSC. The method was to send individuals physical photographs, copies of which were included in his journal. The photographs were then shown to prospective benefactors. See for example, the photo album, Box 100, which contains cabinet cards of individual's medical notes, text of a speech given and his collection of the 'eugenics' Room, 250 nos. of a child suffering from leprosy.

Some of Edington's photographs of pathological findings, such as excised diseased tissues featured in both the ward journal and pathological report.<sup>112</sup> He also used some other photographs and cases for publication purposes.<sup>113</sup>

Photographs could also serve a diagnostic function, even if only a confirmatory one.<sup>114</sup> In March 1895 the case of H.M. was recorded in the second volume of the RHSC Pathology Report, accompanied by a photograph taken before death.<sup>115</sup> A copy of this photograph, a letter and some specimens taken from H.M. after death were sent to Joseph Coats at the Pathology Rooms at the WI by the RHSC Assistant House Surgeon, Bruce Buchanan Morton, on 5<sup>th</sup> March 1895. The letter, addressed to Coats, reads:

Dr. Finlayson 'phoned us this evening, [word indecipherable] might send you samples of the skin and subcut tissue (1) of the neck and (2) of abdomen-which please find. (1) is in the smaller [word indecipherable] of tissue (2) is in the larger. These of course are from the case of cretinism from which we sent you. Tonight the part of bases of brain and the lung you desired.<sup>116</sup> [146]

The letter, photograph and envelope were eventually inserted into the WI pathological reports, thus providing a clear example of the 'status' and currency of the image.<sup>117</sup> [69:147]

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<sup>112</sup>See for example RHSC Journal, Ward II, Volume V, 180, see also RHSC Pathological Reports, Volume II, Case No. 190.

<sup>113</sup>Edington, (1894) 'Defective Development of the Fore-Arm Bones', 390-392.

<sup>114</sup>The photograph's potential in diagnostics was discussed in Chapter Two.

<sup>115</sup>RHSC Pathology Report, Volume II, Report No. 231.

<sup>116</sup>Western Infirmary, Pathological Reports, P5/1/20, opposite Report 4070.

<sup>117</sup>Ibid. Photographs were also used to encourage individuals to donate money to the RHSC. One method was to collect together clinical photographs, copies of which were included in the ward journals. The album could then be shown to prospective benefactors. See for example the RHSC albums, Ref. YHP3/1. They include cabinet cards of unknown medical men, two of Joseph Coats and his colleagues in the WI Pathology Rooms, and one of a child suffering from Smallpox.

ROYAL HOSPITAL FOR SICK CHILDREN,  
GLASGOW.

Jan. Mar 5. 95.

Dear Dr. Coats.

Dr. Fairley's plan as to  
sending an eight and you  
samples of the skin used  
subcut tissue<sup>(1)</sup> of neck and  
(2) of abdomen. - which please  
find. (1) is in the smaller piece  
of tissue (2) is in the larger.  
These of course are from the  
case of Crutcher in form  
which we sent you tonight  
the part of base of brain  
and the lung you desired.

I have etc.  
Yours truly

Bruce D. M. Morton  
Asst. Ho Surgeon.

Path Rooms }  
West Inf. }

ROYAL HOSPITAL FOR SICK CHILDREN,  
GLASGOW.

Jan. Mar 5. 95.

Dear Dr. Coats

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Yours  
Sincerely

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## *Conclusion*

In this chapter I have examined the role of photography in the WI and the RHSC through an analysis of the photographs in their respective pathological reports and ward journals. George Buchanan's ward journals contain photographs taken by his House Surgeons, including Sutherland and Teacher, from 1885 to 1896. The WI pathological reports, unlike those of the RHSC, contain numerous sketches, tracings and drawings, which will be discussed in more detail in Appendix One. Many of the photographs of pathological findings, however, can be attributed to one of Joseph Coats's assistants, Lewis R. Sutherland. These featured in the pathology reports, alongside photographs sent from the ward by Teacher, for example. Sutherland, Teacher and Edington appear to have integrated photography into their routine practices as House Surgeons. They evidently exercised a degree of autonomy, choosing which patients to photograph, and which techniques to use. By the 1880s the WI and RHSC were equipped to use photography on a routine basis, yet its uptake was still in the hands of a few, who no doubt developed their visual acuity. The photograph, specimen and clinical résumé could flow from the WI and RHSC wards journals, to the pathological reports and albums. The inclusion of visual material must have been an important element to the recognition of the case from one context to another.

## **Chapter Five: The Private Journals of Dr Macewen**

The nineteenth-century ward journals of the Glasgow Royal Infirmary (GRI) do not contain clinical photographs, and there are no surviving pathological reports for this period. However, there is evidence that photography was being practiced at the GRI during this period. From 1876 Dr (later Professor Sir) William Macewen (1848-1924) kept a series of Private Journals (PJS), in which he, and his assistants wrote detailed accounts of a selection of cases encountered on the surgical wards of the GRI. From 1881, soon after becoming Lecturer in Surgery to the GRI Medical School, Macewen began to photograph patients, and place the prints alongside the case notes in his PJS. Some of the cases recorded in the PJS were used as the basis for his publications.

This chapter begins with biographical information relating to Macewen, followed by an account of a selection of cases entered in the PJS that relate to some of his pioneering work on pathology and trauma of the brain, intubation and orthopaedics. In addition, by using Martin Kemp's theory of accessory images, which utilise the information contained in the borders of photographs, I will reconstruct aspects of Macewen's photographic practices at the GRI.<sup>1</sup>

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<sup>1</sup>Kemp, M. (1997) 'A Perfect and Faithful Record: Mind and Body in Medical Photography Before 1900', in A. Thomas & M. Braun (eds.) (1997) *Beauty of Another Order: Photography in Science* (London: Yale University Press), 120-235. There is evidence however, that photographs were taken during the 1890s at the GRI to feature in publications, see for example: Steven, J.L.S. (1900) *Lectures on Clinical Medicine Delivered at the Glasgow Royal Infirmary* (Glasgow: A. Macdougall), pages 107, 146-147.

### *William Macewen's early life and education*

William Macewen was born on 22<sup>nd</sup> June 1848 on the Isle of Bute, the youngest of twelve children. His father, John, was a sea-faring man, master of the *Breadalbane* schooner, the property of the Free Church of Scotland. He received his primary education in Rothesay, Bute, but much of his spare time was spent assisting his father in the local boat-yard.<sup>2</sup> In 1860 John Macewen retired and the family moved to Glasgow, residing at Florence Place. When William was aged fifteen, his mother Janet died, and the rest of the family went to live with Mrs Dow, John Macewen's sister. A few years later Macewen's father died, and William continued to live with Mrs Dow until his graduation from the University of Glasgow in 1869.

On moving to Glasgow, Macewen, at the age of twelve, became a pupil in the Collegiate School, Garnethill. He met fellow pupil, James W. Allan who, although one year older, shared many interests. Both planned to study medicine. He and Allan were destined to become life-long friends. They had a conventional education, taking classes in English, Greek, Latin, French, Elementary Chemistry and Natural History.<sup>3</sup>

As Allan recalled:

I cannot say that he was studious in his habits in those days. He was a junior to me and our studies did not coincide at all points — but my impression is that he was careless about his lessons — and more at home in the gymnasium than the class-room ... it was not till we went to College that I saw evidence of that mental capacity and devotion to work which later became such prominent features in

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<sup>2</sup>Bowman, A.K. (1942) *The Life and Teaching of Sir William Macewen: A Chapter in the History of Surgery* (Glasgow: William Hodge & Co. Ltd.), 2.

<sup>3</sup>Allan, J.W. (1924) 'Notes by Dr J. W. Allan, Notes on the School and College days of Sir William Macewen', unpublished. They are part of the Sir William Macewen Collection deposited in the GUABRC, DC79/36, 1. It is conceivable that the chemistry classes helped Macewen with the necessary knowledge to take and process photographs. At the Collegiate School, Garnethill, Macewen and Allan were taught by Dr Archibald Morrison.

his character.<sup>4</sup>

In autumn 1865 at the age of seventeen, Macewen enrolled into the Medical Faculty of the University of Glasgow. From then until his graduation in 1869, his name was entered in the University Matriculation albums as 'William S. M'Ewen.'<sup>5</sup> It is possible to be sure 'William S. M'Ewen' is indeed 'the' William Macewen by cross-referencing his other details, such as his age, course, year of study and his father's name and occupation.

Macewen took the following courses:

1865-6: Anatomy, Chemistry.<sup>6</sup>

1866-7: Anatomy, Chemistry, Surgery, Botany.<sup>7</sup>

1867-8: Anatomy (Senior), Surgery, Institutes of Medicine, Practice of Physic, Natural History (Zoology).<sup>8</sup>

1868-9: Midwifery, Materia Medica, Practice of Physic, Forensic Medicine.<sup>9</sup>

Those teachers who may have influenced the young Macewen include Allan Thomson, Joseph Lister and William Tennant Gairdner. Many of his fellow medical

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<sup>4</sup>Ibid. Allan was, in later life, to become Macewen's brother-in-law.

<sup>5</sup>See *Glasgow University Matriculation Album*, session 1863-1864, 1 and 1870-1871, page 66, Reference R8/1/4. I have not been able to ascertain what the letter 'S' stood for, and Macewen did not appear to use the initial again. It may have been used only temporarily in order to distinguish him from namesakes who attended the University at the same time.

<sup>6</sup>*Glasgow University Calendar for the Year 1866-67* (Glasgow: James Maclehose, 1866). Macewen's chemistry teacher was Professor Thomas Anderson, who in 1864 gave 'acid' to Lister for trials on the disinfection of wounds. The lectures on Chemistry were given outside of the University, in a laboratory on Shuttle Street. In his third year, Macewen studied Natural History under John Young, M.D. who was also a prominent member of the Natural History Society of Glasgow, which Macewen joined in 1869.

<sup>7</sup>*Glasgow University Calendar for the Year 1868-69* (Glasgow: James Maclehose, 1868).

<sup>8</sup>In this year Thomson's assistant in the Anatomy class was George Buchanan. Ibid. 44.

students were destined to become notable names, and they included Joseph Coats (later Professor of Pathology at Glasgow University) and James Finlayson (later Physician to the WI).<sup>10</sup>

Allan Thomson (1809-1884), Professor of Anatomy, taught a course of systematic lectures on regional, surgical and medical anatomy. Thomson utilised visual resources such as the microscope, preparations, specimens and drawings in his lectures, dissections and demonstration classes.<sup>11</sup> Macewen's interest in observation and practical training were indulged in Thomson's classes. Allan noted it was in the course on practical anatomy that:

Macewen now applied himself with zeal to his studies ... the handling of the bones of the skeleton — the work in the dissection room — were laying the foundation for that intimate knowledge of the human frame which stood him in such good stead in the carrying out of the wonderful surgical achievements of later days. And he early showed that keen and thoughtful habit of observation which characterised all his subsequent professional career.<sup>12</sup>

Allan made the analogy that Macewen was 'of the John Hunter type — not content with passively receiving information but keenly observing and judging for himself'.<sup>13</sup> Hunter's influence on Macewen is discussed in more detail in Appendix IV of this thesis. However, Macewen was 'not a student cramming to pass examinations or gain prizes, but a man intent on grasping facts — making himself

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<sup>9</sup>*Glasgow University Calendar for the Year 1869-70* (Glasgow: James Maclehose, 1869). Macewen was taught by John B. Cowan, who had previously been a civil surgeon in the Crimean war, along with Dr George Buchanan, as already noted.

<sup>10</sup>Allan, 'Notes on Sir William Macewen', 7.

<sup>11</sup>*Glasgow University Calendar for the Year 1865-66* (Glasgow: George Richardson, 1865), 21-22.

<sup>12</sup>Allan, 'Notes on Sir William Macewen', 7.

<sup>13</sup>*Ibid.*

familiar with realities — and thinking for himself'.<sup>14</sup> This is reiterated by A.K. Bowman in his biography of Macewen, he wrote that 'in the academic sense, his undergraduate career was undistinguished. He gained no honours of note.'<sup>15</sup>

Macewen and Allan received their medical education in the old College on the Glasgow's High Street. The Museum contained anatomical preparations, stuffed animals and pictures bequeathed to the University by William Hunter.<sup>16</sup> Allan recalled 'free admission to this treasure-house was granted to medical students on purchasing a catalogue and Macewen and I by availing ourselves of this privilege found a quiet retreat for study and reflexion. We practically had the place to ourselves.'<sup>17</sup>

In his second year of study, from 1866 to 1867, Macewen attended Joseph Lister's lectures on the 'Principles and Practice of Surgery'.<sup>18</sup> It was in Lister's classroom, that Macewen 'found pabulum ... for he already showed the bent towards Surgery which seemed to be a part of his nature'.<sup>19</sup> According to Bowman, Lister's teaching was based on the pursuit of scientific knowledge which 'was supported by direct appeal to nature. He accumulated data by observation and experiment, from both of which, careful deductions were drawn.'<sup>20</sup> Lister was in charge of wards XXIV and XXV of the GRI.<sup>21</sup> At this time the GRI was the only teaching hospital in Glasgow.

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<sup>14</sup>Ibid.

<sup>15</sup>Bowman, *The Life and Teaching of Sir William Macewen*, 5.

<sup>16</sup>See, for example, Hunter, W. (1774) *The Anatomy of the Human Gravid Uterus* (Birmingham: 1774) Publication details unknown. See Plates 1-3, 5-10, 15-28, 30-34.

<sup>17</sup>Allan, 'Notes on Sir William Macewen', 5. For a vivid description, see Murray, D. (1925) *The Hunterian Museum in the Old College of Glasgow* (Glasgow: Jackson, Wylie & Co.).

<sup>18</sup>Lister's assistant was Hector Clare Cameron; he was also a resident assistant at the GRI in 1867.

<sup>19</sup>Allan, 'Notes on Sir William Macewen', 5.

<sup>20</sup>Bowman, *The Life and Teaching of Sir William Macewen*, 9.

<sup>21</sup>Lister had arrived in Glasgow in May 1860, but he was not given wards in the GRI until October 1861.

By 1861, soon after Lister's arrival, a new Surgical Block was built, and this is where he carried out many of his pioneering trials of antiseptics.<sup>22</sup>

Another influence on Macewen's education was William Tennant Gairdner (1824-1907), lecturer in the Practice of Medicine at the GRI from 1862 to 1874.<sup>23</sup> Gairdner's lectures were 'broad and philosophical, with a bent on the practical aspects of the healing art'.<sup>24</sup> Like Thomson, Gairdner's lectures were illustrated by drawings, wax casts, models and preparations of morbid anatomy. Macewen and Allan absorbed what Gairdner had hoped:

[T]he University developed their mind and character, it was in the Royal Infirmary which the professional training, the lessons which they were taught in the college were to be put into practice. And it was within the walls of the old G.R.I. that Macewen found himself really at home, and found a field for the exercise of his surgical ability.<sup>25</sup>

In 1874 Gairdner was installed as Regius Professor of the Practice of Medicine, at the University of Glasgow and physician to the WI. In an introductory address he stated that 'the hospital is my laboratory, the wards are my field of practical illustration and instruction'.<sup>26</sup> For Gairdner, it was important to create a link between the ward and the classroom. One way this could be achieved was through the careful

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In Macewen's final year of study, 1868-1869, Lister's clinical classes were held on Tuesdays beginning on 27<sup>th</sup> October, from 8.30 a.m. See the *Glasgow University Calendar, 1868-1869*, 27.

<sup>22</sup>See Jenkinson, J., Moss, M., & Russell, I. (1994) *The Royal: The History of the Glasgow Royal Infirmary 1794-1994* (Glasgow: Glasgow Royal Infirmary NHS Trust), 107.

<sup>23</sup>See Turner, G.-G.(1939) *The Macewen Outlook in Surgery: Macewen Memorial Lecture* (Glasgow: Jackson, Son & Co.), 20.

<sup>24</sup>Ibid.

<sup>25</sup>Allan, 'Notes on Sir William Macewen', 8.

<sup>26</sup>Tennant Gairdner, W. (1877) *Two Lectures: I Lectures, Books, and Practical Teaching; II Clinical Instruction, Being Introductory Addresses Delivered in the University of Glasgow and the Western Infirmary, Session 1877-1878* (Glasgow: James Maclehose).

See Lecture II, 17. However, Gairdner is talking here about the WI rather than the GRI.

keeping of hospital ward journals by clinical clerks; the facts could then, if necessary, be revised by the Resident or Visiting Physicians.<sup>27</sup> The case notes summarised the ‘whole cases’ and these could be supplemented by diagrams of physical observations, sphygmograms, etc. For Gairdner, ‘the hospital journals, therefore, were the raw material, so to speak of our clinical lectures’.<sup>28</sup> He stated that ‘striking or typical phenomena from their nature can be submitted to larger numbers, or even the entire class, on one or other of the lecture days’.<sup>29</sup>

In looking through ward journals, one gains a sense of clinical and surgical practice. For example, some physicians and surgeons and their assistants included temperature charts and pulse tracing alongside case notes; whilst others preferred to include photographs and/or drawings. My impression is that physicians, surgeons and their assistants exhibited a specific preference for temperature charts, pulse tracings, sketches and/or photographs, and these choices would vary over time.

As an undergraduate Macewen came into contact with Lister, not only in his lectures on Clinical Surgery at the University of Glasgow, but also, as we have seen, on his wards at the GRI. Macewen was to become one of Lister’s dressers. Lister left Glasgow in August 1869 to take up the Chair of Clinical Surgery at the University of Edinburgh, and a few months later Macewen graduated from the University of Glasgow with a Bachelor’s Degree in Medicine and Masters in Surgery (MB, CM).

Lister evidently made a profound impression on Macewen. In 1869, Macewen published his first article, which described a ‘Blood Transfusion Carried Out by Mr

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<sup>27</sup>Gairdner, (1877) *Two Lectures*, II, 28.

<sup>28</sup>Ibid.

<sup>29</sup>Ibid, 29.

Lister.<sup>30</sup> In fact, Macewen and Lister exchanged correspondence throughout the remainder of their lives.<sup>31</sup>

### *William Macewen's early career*

In the winter of 1869, Macewen became house surgeon to Dr George H.B. Macleod (1828-1892) at the GRI. Macleod was considered, by his contemporaries, as a good practical surgeon, but was considered neither scientific, or up to date. After a brief spell as house physician on the medical side, Macewen came to realise that, according to Allan, 'his heart lay in the surgical wards'.<sup>32</sup>

Surgery was his work — his pleasure — the passion of his life. And he was always thinking and working on surgical lines. The secret of Macewen's wonderful success [sic] lay in the possession of natural genius for surgery — strengthened and developed by constant close, keen observation — patient investigation and experiment, and work-hard work. His mind was constantly in the questioning attitude. He took nothing for granted. "Current opinions" or "accepted views" had no weight with him till tested by experiment or experience.<sup>33</sup>

At the end of 1870, Macewen set up a general practice in 5 Ure Place, Glasgow in order to gain experience and to make money. In the same year he was appointed first resident Medical Officer at Belvidere, Glasgow's first Fever Hospital, under J.B.

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<sup>30</sup>Macewen, W. (1869) 'Notes on a Blood Transfusion Carried Out by Mr. Lister', *Glasgow Medical Journal*, 2: 128.

<sup>31</sup>Lister's letters to Macewen dating from 1873 to 1907 are held in the Macewen Collection, Royal College of Physicians and Surgeons, Glasgow, RCPSG10, Box 1A.

<sup>32</sup>Allan, 'Notes on Sir William Macewen', 79.

<sup>33</sup>Ibid.

Russell (1837-1904), Glasgow's Medical Officer of Health.<sup>34</sup> Macewen only held the appointment for a few months — perhaps the realm of infectious diseases was too narrow for him. However, he utilised this opportunity to undertake pioneering work into intubation of the larynx.<sup>35</sup> Unfortunately there are no associated primary sources available for this period from Belvidere, only the admission registers.<sup>36</sup>

From 1871, Macewen held two new appointments. First, he became District Medical Officer to the Town's Parish Hospital on Parliamentary Road, Glasgow, under the physician superintendent, Dr Alexander Robertson. By 1870, this was a Poor Law hospital, set up by the Glasgow Parochial Board. Robertson encouraged Macewen's interest in research, allowing him to set up a makeshift laboratory where he undertook work on bacteriology and pathology.<sup>37</sup> Macewen also undertook pioneering surgery on cerebral complications of the middle ear, and ovariectomy.<sup>38</sup> His account of the case of ovariectomy begins with the patient's name, age, occupation and condition on admission. This is followed by her history, written with a strong sense of the visual:

She is a woman below the average height, of a sallow complexion, with black hair thickly interspersed with grey, the change in colour of the hair being contemporary with the detection of the tumour. She walks with the laboured pompousness, and wears the exaggerated aspect of a woman far advanced in pregnancy; the anxious eye being rendered more prominent by the emaciated and

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<sup>34</sup>Robertson, E. (1998) *Glasgow's Doctor: James B. Russell, MOH, 1837-1904* (East Linton: Tuckwell), 68. See also McKenzie, P. (2000) *Fevers, Family and Friends: A Memoir* (Centre for the History of Medicine, University of Glasgow), 96.

<sup>35</sup>Ibid. See also Bowman, *The Life and Teaching of Sir William Macewen*, 15.

<sup>36</sup>GGHBA, see the GRI Admissions registers, circa 1871, GB812/HB65.

<sup>37</sup>Bowman, *The Life and Teaching of Sir William Macewen*, 18.

<sup>38</sup>RCPSG10/9/12, indexed as the 'Private Journal of William Macewen most relating to surgical cases referred to him at the Central Police Stations and the Town's Hospital, in his capacity as Police Surgeon.' See also Macewen's medical scrapbook, press cuttings mainly relating to his police work, Ref. RCPSG 10/9/10 a & b.

sunken cheek, and the conjunctival whiteness floating over a hollow, clouded lower eye-lid.<sup>39</sup>

Macewen's second appointment began in August 1871. He became Casualty Surgeon for the Central Police Station on Albion Street, Glasgow. Macewen broadened his surgical knowledge, publishing detailed and vivid accounts of cases including alcoholic coma and accidental wounds. The latter was Macewen's first article to contain 'diagrammatic sketches'.<sup>40</sup> Allan remarked that Macewen's appointments at the Poor House and Police Office did not seem to be 'very inviting, but the observations he made and the surgical procedures he performed were evidence of his ability to seize opportunities, and make the best possible use of them'.<sup>41</sup> In 1872 Macewen gained his M.D. Unfortunately his thesis is missing from the Glasgow University Library.<sup>42</sup>

In December 1873, Macewen was appointed to the Dispensary of the WI by the Senate of the University of Glasgow. He resigned from this post on 18<sup>th</sup> November 1874, having joined the GRI Dispensary on 2<sup>nd</sup> November.<sup>43</sup> In the same year, Macewen moved to new private consulting rooms at 73 Bath Street, Glasgow. Two years later, on 1st May, 1876, Macewen was appointed Visiting Surgeon and Lecturer to GRI, in place of Dr Donald Dewar. At this time Macewen began the first volume of a PJ in which he and his assistants entered details of selected cases encountered on

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<sup>39</sup>Macewen, W. (1874) 'Ovariectomy: Removal of Both Ovaries. Performed and Treated Antiseptically' *Glasgow Medical Journal*, **6**: 89.

<sup>40</sup>Macewen, W. (1876) 'Wounds in Relation to the Instruments which Produced Them', *Glasgow Medical Journal*, **8**: 28-76.

<sup>41</sup>Allan, 'Notes on Sir William Macewen', 710.

<sup>42</sup>I have made enquires to the GUABRC, RCSE, The British Library, and Macewen's great great-grandson.

Wards XXI, XXII and XXIX of the GRI.<sup>44</sup> The PJS contained case notes and photographs which would often be used as the basis of Macewen's publications.

### *The Private Journals of Dr Macewen*

There were originally at least fifteen volumes of Macewen's Private Journals (PJS), dating from 1876 to 1895.<sup>45</sup> Volumes I, II, III, IV, V, VIII, XI, XIII, and XV are extant; while numbers VI, VII, IX, X, XII, and XIV are missing. Each volume is labelled as 'The Private Journal of Dr Macewen', even though many of the entries were written by his colleagues on the wards of the GRI.<sup>46</sup> The PJS contain only a selection of cases. The photographs appear at the beginning in Volume III, from April 1881 and continue until May 1891 in Volume XIII.

In some instances, the same author would enter the patient's details in both the PJS and in the corresponding GRI ward journal. The length of entries in both the ward and PJS vary, in either context, from a few lines to one or more pages.<sup>47</sup> On the whole, accounts in the PJS tend to more detailed and may be accompanied by

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<sup>43</sup>GUABRC, DC79. Also in 1874, Macewen was accepted to Fellowship of Royal College of Physicians and Surgeons, Glasgow. However, there was some debate about his qualifications and his moral suitability.

<sup>44</sup>'Dr Macewen's Private Journal', Volume 1, 1876-1879, RCPSG10/9/1. From 1876 to 1879 Macewen continued to publish numerous articles, including those on the life of bone, alcoholic coma, epilepsy, intubation and osteotomy for genu valgum and genu varum.

<sup>45</sup>The earliest photographs date from 1881 in Volume III of the Private Journal; however photographs do occur in Volume I, but these have been placed there retrospectively and are examples of Macewen's interest in the patients 'after history', they were placed in Volume I during the early 1880s.

<sup>46</sup>The journals contained circa 300 numbered and lined pages, bound in a cloth cover, onto which was embossed in gold letters 'Dr Macewen's Private Journal', followed by the volume number.

<sup>47</sup>In some instances, however, the ward journal entries contain more detail of the patient's after-care and recovery.

photographs.<sup>48</sup> The PJS provide an invaluable insight into Macewen's surgical and photographic practice as well as his interest in visual culture, including casts, models, specimens etc. Describing and analysing every case in the PJS is, however, beyond the scope of this research. Therefore the remainder of the chapter discusses cases relating to Macewen's pioneering work on pathology and trauma of the brain, intubation and orthopaedics.<sup>49</sup> These categories were selected, not only because it seemed a simple way to organise the material, but also because there were too many other subjects covered in the PJS as a whole. These three categories are represented by a sufficient number of cases in order to provide a preliminary overview of Macewen's surgical and photographic practices.

### ***Pathology and Trauma of the Brain and Skull***

The first case was entered in Volume I of the PJ on 20<sup>th</sup> May 1876, approximately three weeks after Macewen was appointed as surgeon to Dr Dewar's wards.<sup>50</sup> Amputations, excisions of joints, fractures and osteotomy were the most numerous subjects to be entered in each volume of the PJS as a whole.<sup>51</sup> However, this does not necessarily mean that they were the most photographed subjects.<sup>52</sup>

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<sup>48</sup>The most complete run of GRI ward journals relate to Ward XXIX during the 1870 and 1880s, when Macewen was Visiting Surgeon. The frontispieces of the ward journals include the names of Macewen's assistants. The assistants would not only write the ward journal entries, but also the PJ entries. The assistants were as follows: 1878, J. Symington and H.J. Clarke, HH67/29/2; 1883, Ernest Kingscote and Rhys D. Morgan, Ref. HH67/29/3; and from 1887-1888, A. Duncan, Waller Fox, G. Ritchie Thomson and Herbert F. Waterhouse, HH67/29/4.

<sup>49</sup>Macewen would not, however, have used the term 'orthopaedics'.

<sup>50</sup>RCPSG10/9/1, the first entry, was 'reported by A.B. Boisin'. The last entry in Volume I is dated 6<sup>th</sup> March 1879. Macewen continued the practice of using journal entries as the basis of publications. The volume contains accounts of 137 cases encountered by Macewen, until March 1879.

<sup>51</sup>RCPSG10/9/1 contains a total of 137 cases, the most numerous entries include amputations (28), excisions (16), fractures, other than head (15), osteotomies (9).

<sup>52</sup>Volume IV, RCPSG10/9/4 runs from 1883 to 1884 and contains 120 cases. Again, amputations, excisions, and fractures in the bones of the torso were the most numerous entries.

One of the first entries in Volume I of the PJ provides an account of the case of J.M., admitted to the GRI on 21<sup>st</sup> July 1876, suffering from an abscess on the brain.<sup>53</sup> His parents, however, refused to allow Macewen to operate, and thirty-six hours later the patient died. Permission was then granted for an operation to take place on the cadaver. The skull was trephined, the brain exposed, and an instrument was introduced into the frontal convolution, revealing an abscess the size of a pigeon's egg.<sup>54</sup> The location of the abscess was drawn on two pre-printed diagrams that were pasted beneath the written account, showing the lateral and anterior aspects of the brain.<sup>55</sup> The account recorded in the PJ is repeated almost verbatim in Macewen's illustrated paper on 'The Surgery of the Brain and Spinal Cord' published in the *BMJ* in 1888.<sup>56</sup>

Similarly, J.D. was admitted to the GRI, 13<sup>th</sup> March 1879, suffering from a swelling on the right side of his face and brow.<sup>57</sup> When he became unconscious, Macewen thought it would be advisable to operate. An incision was made down to the bone of the coronal suture, exposing a fracture of the skull. Part of the skull was

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Volume V, RCPSG10/9/5, runs from 1884 to 1885, and contains 74 cases, and 23 photographs. The number of photographs of each is indicated after the colon; for example, excisions (17:2 photographs), amputations (11: 6).

Volume VIII, RCPSG10/9/6, runs from 1886 to 1887, and contains 71 cases, and 14 photographs. The most numerous are excisions (15:7) and hernia (13:0).

Volume XI, RCPSG10/9/7, runs from 1887 to 1889, and contains 107 cases with 17 photographs. There were also excisions (18: 1); tumours (14:0); fractures (13: 0) and hernia (11:1).

Volume XIII, RCPSG10/9/8, runs from 1890 to 1891, and contains fifty-six entries. Of these, excisions (12:3) followed by hernia (7:0).

Volume XV, RCPSG10/9/9, runs from 1891 to 1895 and contains only twenty-two entries. The most common entries were excisions (4) fractures 'other' (4). There are no photographs.

<sup>53</sup>RCPSG10/9/1, pages 18, 21, 32-33.

<sup>54</sup>Ibid. The instrument introduced was a bistoury.

<sup>55</sup>See Macewen, W. (1888) 'An Address on the Surgery of the Brain and Spinal Cord', *British Medical Journal*, **II**: 302-309. The article was accompanied by another diagram, which showed the precise location of the abscess.

<sup>56</sup>Macewen, W. (1888) 'The Surgery of the Brain and Spinal Cord', *British Medical Journal*, **II**: 302-309. The case of J.M. relates to 'Case 1'.

depressed, so Macewen elevated this portion by trephining. 'The wound was left freely open, covered with protective plaster and a gauze dressing applied — the operation was under strict antiseptic precautions.'<sup>58</sup>

The procedure was a success, and the patient recovered well. J.D. re-visited the wards nine years later, and a photographic portrait was taken, above which Macewen wrote:

[J.D.] This photograph was taken in theatre G.R.I. May 1887 from [J.D.] — who has been regularly at work for a considerable portion of time and has never been ill since he left the wards.<sup>59</sup>

This is the 'first' photograph to appear in Macewen's PJS. While Volume I dates from 1876 to 1879, the photograph of J.D. dates to 1887, when he made a return visit the ward. This is, however, an example of Macewen using photography retrospectively to record the patient's after history, a practice that he would continue throughout the remainder of his career. In April 1879, Macewen delivered an account of the case at the Glasgow Medico-Chirurgical Society, where he stated that 'hospital surgeons were too apt to set down these cases as cures, without knowing anything of their after history'.<sup>60</sup>

Another example of pioneering surgery and the following up of the patient's after history relates to Macewen's removal of a tumour of the dura mater in 1879.<sup>61</sup> On 21<sup>st</sup>

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<sup>57</sup>RCPSG10/9/1, 213-215.

<sup>58</sup>Ibid. 215.

<sup>59</sup>RCPSG10/9/1, 212. An identical print appeared in Volume VIII, 62.

<sup>60</sup>Macewen, W. (1879) 'Trephining in Fracture of the Skull', *Glasgow Medical Journal*, **12**: 151. This was the XIII Meeting, held on 4<sup>th</sup> April, 1879. I could not find an account of the case in the Minute Books of the Glasgow Medico-Chirurgical Society, held in the GUABRC, DC373.

<sup>61</sup>An account of this operation has made its way into the historical and surgical literature. See for example: Jennett, B. (1976) 'Sir William Macewen 1848-1924, Pioneer Scottish Neurosurgeon', *Surgical Neurology* **6**: 57-60; Clezy, J.K.A. (1985) 'Brain Abscess - Then and Now', *Papua New Guinea Medical Journal*, **28**: 115-117; Ellis, H. (1994) *Surgical Case-Histories From the Past* (London:

October, B.W. was admitted to the GRI complaining of a swelling over the left eye.<sup>62</sup>

The tumour was ‘over the inner side of the left upper orbital cavity ... being about the size of a kidney bean’.<sup>63</sup> Six days after her admission the journal entry records that:

She became slightly convulsed on the right side of the face and arm, this amounted at first to twitching merely the eyelids and muscles generally of the right side of the face. The right arm was firmly flexed and violently twitched. Just as she became convulsed she uttered a moan which Miss McKie who was in the ward, in no way recognised as being like the cry of an epileptic, she having had experience with epileptic patients.<sup>64</sup>

From this statement it is clear that Macewen did not consider the patient to be suffering from epilepsy.<sup>65</sup> He had deduced that the tumour above the eye had exerted pressure on the ‘nervous apparatus’. He suspected that a growth might also be present on the inside of the patient’s skull. Due to her deteriorating condition, Macewen decided to operate. He cut through the node. The bone underneath this swelling was found to be ‘slightly rough and to impart a softer feeling to the fingers than normal’.<sup>66</sup> Macewen used a one-inch trephine to elevate the portion of bone. This disc of skull was removed and on its under surface was a tumour. A portion of this ‘came away, adhering to the skull, while a considerable portion was spread over the dura-mater, this was removed as far as practicable, but we were not perfectly certain whether the whole

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Royal Society of Medicine Press) 45-48; Canale, D.J. (1996) ‘William Macewen and the Treatment of Brain Abscesses: Revisited After One Hundred Years’, *Journal of Neurosurgery*, **84**: 133-142. See also: ‘Proceedings of the Fifth Meeting of the British Neurosurgical Research Group (Sir William Macewen Sesquicentennial)’, *British Journal of Neurosurgery*, (1999) **13**: 101-118; Jacyna, L.S. (2000) *Lost Words: Narratives of Language and the Brain 1825-1926* (London: Princeton University Press), 208-212.

<sup>62</sup>RCPSG10/9/1, 246-252.

<sup>63</sup>Ibid. 246.

<sup>64</sup>Ibid. 247.

<sup>65</sup>But this term was subsequently used by others in their descriptions of the case. For example in A.K. Bowman’s biography, he describes the case as a ‘Tumour of the Dura Mater Removed During Life in a Person Affected with Epilepsy’, 408.

<sup>66</sup>RCPSG10/9/1, 248.

was absolutely removed.’<sup>67</sup> This tumour was found to be continuous with the node existing on the outside of the skull, and measured a square area of two and a half inches square. This was detached from the scalp and removed from the bone, after which ‘the flaps were brought together: horsehair drains being left in. Of course the whole operation was performed antiseptically.’<sup>68</sup> The patient recovered and was kept on the ward until 1<sup>st</sup> October 1879. Again many of the details of this case featured in Macewen’s 1888 paper on ‘The Surgery of the Brain and Spinal Cord’.<sup>69</sup> At the end of the PJ entry, Macewen wrote,

[O]n 29<sup>th</sup> June, 1883, Since last note the patient has regularly visited the ward; and has continued in excellent health. Underneath is the photograph taken a few days [sic]. A scar is slightly visible to the left of the forehead.<sup>70</sup>

Below this are a further two portraits, one taken in 1882, the other in 1885. On the following page of the journal are two more photographic portraits, beneath which Macewen wrote ‘March 1884 — Above present at Southern Medical Society demonstration in G.R.I. on cerebro-spinal lesions — well and working regularly.’<sup>71</sup>[70-71:165] Both images were printed on pre-cut papers, with distinctive rounded corners. Although photographs were useful in demonstrating Macewen’s surgical success, it was far better to see the patient in the flesh. Therefore, some of Macewen’s patients would revisit him either on the ward, or attend medical society lectures at his request and expense.

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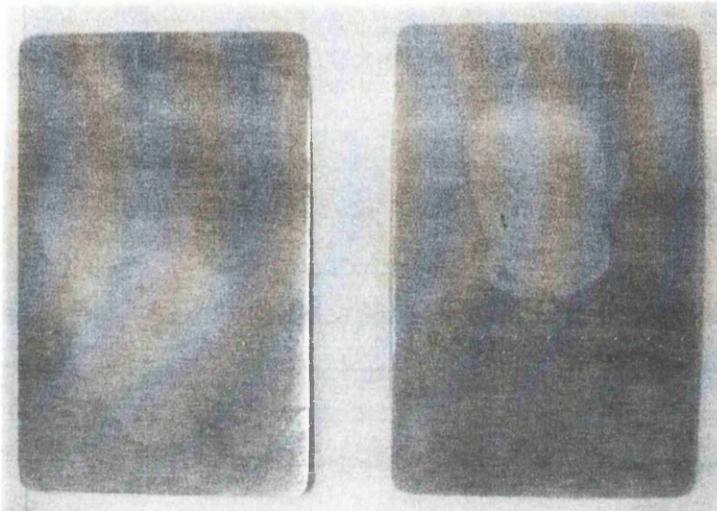
<sup>67</sup>Ibid. 249.

<sup>68</sup>Ibid.

<sup>69</sup>Macewen, W. (1888) ‘The Surgery of the Brain and Spinal Cord’, page 304. Case 3 is that of B.W.

<sup>70</sup>Ibid. 251.

<sup>71</sup>Ibid. 252. The Southern Medical Society Minute Book for 20th March 1884 states ‘The President introduced a professional conversation on the clinical demonstration given by Dr Macewen, with special reference to its bearing upon general medical practice, and to the doctrine of cerebral localisation. He also gave two illustrative cases, one of the patients being shown’. RCPSG73/1/6.



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The PJS could be used as the basis for many future publications.<sup>72</sup> His decision to photograph J.D. and B.W. retrospectively reflected his interest in fractures of the skull and tumours of the brain. Moreover, the photographing of J.D. in 1887 and B.W. in 1882, 1883 and 1885 indicates that at the time these patients were admitted and treated at the GRI in 1879, Macewen may not have begun taking photographs on a regular basis.

In November 1878, Macewen became Lecturer in Forensic Medicine at the GRI Medical School. His course covered the study of 'the dead body', wounds and injuries, death from natural and criminal means, poisons, and sexual functions. Students were given the opportunity 'of becoming practically acquainted with his subject in the Wards of the Hospital, the Forensic Laboratory and the Post-mortem Room; many of the questions being further illustrated by actual cases'.<sup>73</sup>

Volume II of the PJ runs from 1879 to 1881 and is incomplete; the first few hundred pages have been torn out.<sup>74</sup> However, most of the page margins survive and they provide valuable information concerning the former entries, allowing these to be cross-referenced with those in the index.<sup>75</sup> Analysis reveals, like the previous volume, that fractures, amputations, and excisions of joints were the commonest entries.

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<sup>72</sup>See Macewen, W. (1879) 'Tumour of the Dura Mater-Convulsions-Removal of Tumour by Trephining-Recovery', *Glasgow Medical Journal*, 12: 210-213; Macewen, W. (1888) 'An address on the Surgery of the Brain and Spinal Cord', *British Medical Journal*, II: 302-309. Here Macewen states that the patient lived for eight years afterwards, ultimately becoming affected with chronic Bright's Disease, from which '[S]he died. The skull and brain were examined, and there was no trace of further tumour growth', 304.

<sup>73</sup>*Glasgow Royal Infirmary and School of Medicine* (Glasgow: James Lumsden, Son, & Co. 1880), 11. At the same time however, Macewen was Casualty Surgeon at the Glasgow Town's Hospital.

<sup>74</sup>RCPSG10/9/2, pages 1-195 have been torn out, but those from 196-282 are intact. Whether photographs were on these pages is unknown.

<sup>75</sup>From looking at the margin on the first page, the first case was entered in the volume in April 1879. The first intact page is dated 10<sup>th</sup> February 1881, on page 197. The last entry in this volume dates to September 1881. See also Macewen, W. (1879) 'On Antiseptic Osteotomy', *British Medical Journal*, I: 656. The index is organised by disease, there are nine patients under the heading, 'Knock knee &

This Volume contains a few 'Paper Patterns', which functioned like a modern dress pattern. These are pieces of paper on which a sketch has been drawn to show the degree of curvature of the patient's limb(s). The patterns also show where the bone was to be removed from a limb(s) during osteotomy, for the treatment of rickets or knock-knee for example. Whilst some sketches were done directly on the pages of the journal, others were drawn on separate pieces of paper, cut out with scissors, and then pinned or sewn into the PJS alongside the case notes. In one instance the paper pattern accompanied the case of W.G., admitted to the GRI suffering from tibial curves of both legs.<sup>76</sup> [72:168; 73:169]

On one occasion that Macewen performed an osteotomy, he retained a portion of the tibia, which he later transplanted into the humerus of another patient, W.C.<sup>77</sup> Between 1879 and 1880, W.C. underwent three operations for transplantation of bone to the humerus.<sup>78</sup> Although the relevant pages have been destroyed, one of the margins contains part of an envelope that bears W.C.'s name.

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curves of the tibia'. A temperature chart relating to a case admitted on 30 August, 1880 is also preserved in the margin. The margins also list three cases of croup and the use of tracheal tubes. These cases published in Macewen, W. (1880) 'Tracheal Tubes Introduced through the Mouth for Administration of Chloroform during an Operation for the Removal of an Epithelioma from the Tongue and Pharynx', *The Lancet*, II: 906; see also Macewen, W. (1880) 'The Introduction of Tracheal Catheters by the Mouth in Lieu of Tracheotomy or Laryngotomy', *British Medical Journal*, II: 122, 198. In one of the margins details of a case of double knock-knee from February 1880 included a paper pattern showing the severity of the curves, and a note, which recorded that 'casts were taken'.

<sup>76</sup>See RCPSG10/9/1, 258, which records the case of W.G. admitted to the GRI on 29<sup>th</sup> September 1879 suffering from anterior tibial curves. See a similar case, *ibid.* page 254.

<sup>77</sup>This account relates to the second operation performed on W.C. when 'an incision was made in the middle line of the arm, extending from the distal end of the newly formed bone to the proximal extremity or lower epiphysis ... there the wedge-shaped portion of bone taken from the tibia of W.G. (who was being operated upon at the same time) was removed, broken into several smaller portions and introduced', GRI Ward Journal, Ward 29, 1880, 112-113, HH67/29/3.

<sup>78</sup>The first entry was dated 9<sup>th</sup> November 1879; the second on 1st February 1880, and the last on 9<sup>th</sup> April 1880.

*Handwritten text, possibly a name or signature, located on the left side of the document.*

*Handwritten text, possibly a name or signature, located in the center-right area of the document.*

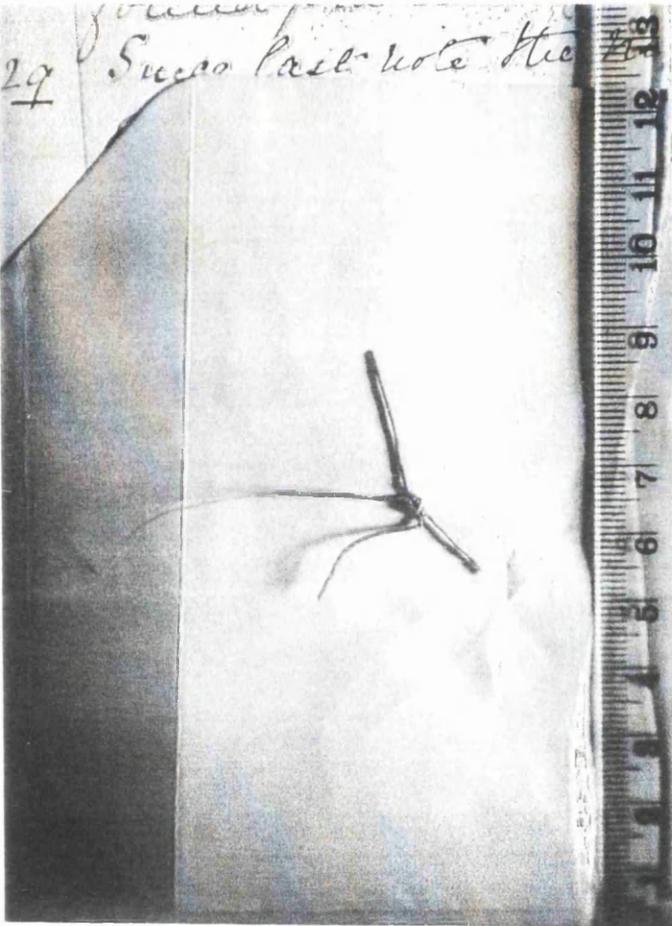
12

Right

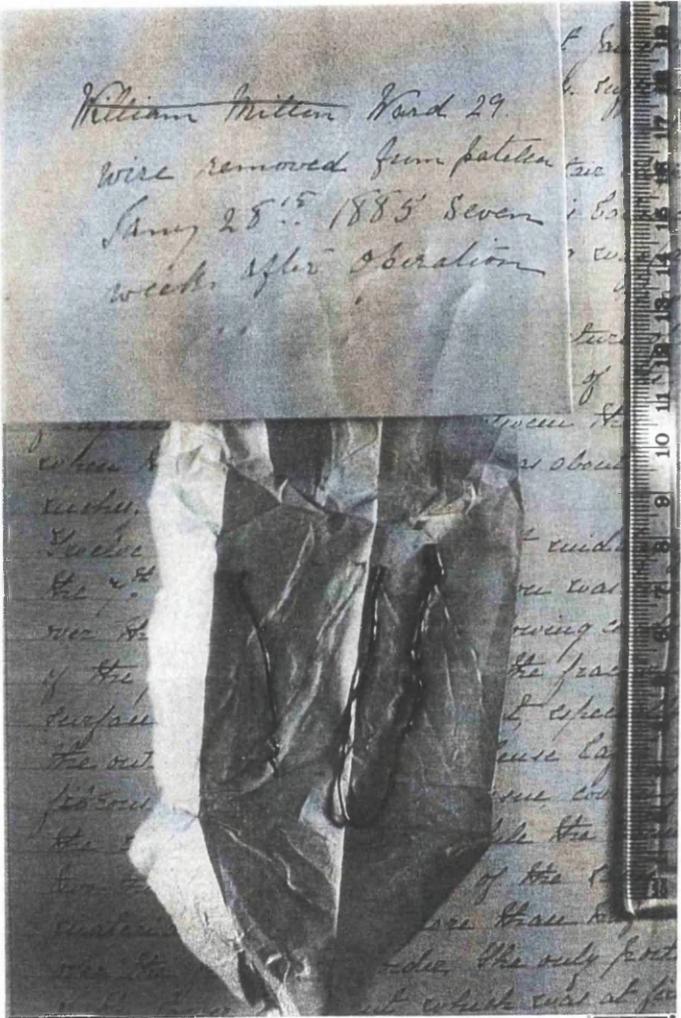
r. leg.

Left leg

73



74



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Despite the fact that the journal entries for these three operations no longer survive, details can be found in the GRI ward journal and in published papers.<sup>79</sup> This case will be discussed in further detail later in this chapter.

Macewen evidently thought that in one or two important cases it was worth keeping sutures once they had been removed from the patient.<sup>80</sup> [74:170] Macewen also kept examples of the wire he used to hold together joints temporarily.[75:170]

### *Osteotomy — Macewen's first recorded links with photography*

The earliest evidence linking Macewen with photography appears not in his PJS, but in his monograph entitled *Osteotomy*, published in 1880.<sup>81</sup> George Grey Turner noted that the book 'contains no preface and no dedication, but is simply an unadorned presentation of a subject which he had obviously already made his own'.<sup>82</sup> Macewen

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<sup>79</sup>Macewen, W. (1881) 'Observations Concerning Transplantation of Bone: Illustrated by a Case of Interhuman Osseous Transplantation, Whereby over Two-Thirds of the Shaft of a Humerus were Restored', *Proceedings of the Royal Society*, 32: 232.

<sup>80</sup>RCPSG10/9/2, page unnumbered. For [75:150] see RCPSG10/9/5, 67. Chromic catgut stitches were originally placed in envelope alongside the case on page 278 in Volume I of the Journal. They are, however, missing. Lister subsequently became interested in Macewen's use of chromic catgut and they exchanged correspondence. See for example, 'J. Lister to Macewen, 2 October 1873 on using Catgut for the Pedicle in Ovariectomies' and 'J. Lister to Macewen, 12 March, 1881, on the preparation of catgut ligatures', RCPSG10/Box 1A. According to Thomas Gibson, Macewen's catgut worked; but the delay of 7-8 months in preparation was a nuisance.

Macewen's method. involved 'making a water solution of chromic acid and glycerine in the proportion of one part to two. The hanks of catgut were inserted in this solution and retained there for 7 to 8 months before being stored in a solution of carbolic acid (one to ten) until ready for use. The ligatures were strong and persisted for 2 to 3 weeks, long enough for clinical purposes.' See Gibson, T. (1990) 'Evolution of Catgut Ligatures: The Endeavours and Success of Joseph Lister and William Macewen', *British Journal of Surgery*, 70: 824-825.

<sup>81</sup>Macewen, W. (1880) *Osteotomy With an Inquiry into the Aetiology and Pathology of Knock-Knee, Bow-Leg, and other Osseous Deformities of the Lower Limbs* (London: J. & A. Churchill). A couple of letters to Macewen from the publisher, James Maclehose, dated May 1880, contain details of the cost of the publication, RCPSG10, Box 1A.

<sup>82</sup>Turner, (1939) *The Macewen Outlook*, 32.

sent a copy of his book to Joseph Lister.<sup>83</sup> In the front of this copy is Macewen's letter to Lister, dated 10<sup>th</sup> November 1880, where he states that he:

Had intended to dedicate it to you but refrained from doing so, because it was such a small thing in itself. I was not at all sure of its success and lastly, as I advocate antiseptics I thought the work would be better to appear without being given to outsiders of any private feeling which they might imagine was entertained by one toward you and which they might think influenced the expression of opinion ... I tell you this, because I see your hand in all of these and think you have a right to know [word indecipherable] their progress.<sup>84</sup>

Unfortunately, I have been unable to locate any of the original photographs relating to his book on *Osteotomy*.<sup>85</sup> The book does, however, contain fifty-three woodcuts by Mr Miller, an engraver, ten of which are described as taken from photographs, and another four from casts.<sup>86</sup> It was evidently important for Macewen to inform the reader that he was in possession of photographs, even though it was perhaps too expensive and/or complicated to reproduce them in the book. Nevertheless, Macewen described many of the woodcuts as a 'faithful representation'.<sup>87</sup> Thus, the photographs were transposed into woodcuts for the purposes of publication, a similar process to that which had occurred with Marriott's photographs for Lister.

The text makes fleeting references to each patient's age, but there are no clues to the identity of the individual in the tightly cropped images. Perhaps the patient's gender is hinted at by the way in which the clothing is draped over the patient's body.

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<sup>83</sup>This copy is held in the Wellcome Library, London.

<sup>84</sup>Ibid.

<sup>85</sup>While Volume II of the PJ contains a small amount of visual material, such as paper patterns showing the outline of patient's distorted limbs, there are no photographs which relate to this publication.

<sup>86</sup>It is possible that some of the other engravings were taken from casts or photographs, but the original sources were not explicitly referred to in the text. Other engravings include schematised drawings, sections through limbs, femora, and wounds. Whether this was the same Mr Miller, who had executed the engravings of the wrist for Lister some years earlier, is unclear.

<sup>87</sup>Macewen, (1881) *Osteotomy*, 151.

Of the ten woodcuts, seven were taken from photographs and show the condition of the patient before treatment. They show 'moderate', 'marked', 'typical' and 'aggravated' cases of genu varum and genu valgum. Two of the remaining three woodcuts are from after shots and can be paired with those taken before treatment.

We can conclude that, at least by 1880, Macewen was engaging in the 'before and after shot', which was to become one of the accepted conventions in clinical photography.<sup>88</sup> In each case, the text records whether the engraving was made directly from a photograph or a cast of a patient's diseased limb. The engravings in *Osteotomy* were, evidently, the result of a close collaboration between Macewen and Mr Miller. In one aggravated case of bow-leg, Macewen stated that 'the woodcut is a faithful representation of the patient prior to the operation, a circle having been drawn on it at the suggestion of Mr. Miller, the wood engraver'.<sup>89</sup>

The fact that the photographs were referred to in the text is of importance. Although I have been unable to locate any of the original prints, the fact that the engravings were taken from photographs indicates that Macewen was using photography prior to the publication date, November 1880.

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<sup>88</sup>Woodcuts taken from casts appear on pages: 36, 47-48 & 55.

<sup>89</sup>Macewen, (1881) *Osteotomy*, 151-152.

*The earliest photographs in Dr Macewen's Private Journals*

On 25<sup>th</sup> April, 1881, Macewen became Lecturer in Systematic Surgery at the GRI.<sup>90</sup>

Around the same time, he began to include photographs in his PJ. The first prints accompanied a progress report on a bone transplant carried out some years earlier.<sup>91</sup>

Ten photographs were taken of the patient W.C. 1881.<sup>92</sup> The PJ entry records that the 'present condition may be judged from the photographs. He can put his hand to his head and feed himself and work pretty well with the arm.'<sup>93</sup> Macewen followed up many of his important cases, but W.C.'s after history may be one of his longest and most documented, he was photographed in 1881, 1884, 1888 and circa 1912.<sup>94</sup> [76-80:176] Two of the latter are among the handful of anonymised photographs relating to Macewen's work.

In October 1882 Macewen went on a grand tour, visiting hospitals in Germany.<sup>95</sup>

He made detailed notes and sketches of what he saw in a notebook. Macewen visited

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<sup>90</sup>In November 1881 Macewen stood for President of the GRI Medical Society, but was beaten by Dr Henry E. Clarke, who received 23 votes, over 14 for Macewen, HB14/1/99.

<sup>91</sup>RCPSG10/9/3. The first case entered is dated early 1881, the last early 1883. There are a total of 149 cases in Volume III, 22 of which are accompanied by one or more photographs. The commonest conditions entered in the journal are: Excisions 34, 6 of which are accompanied by photographs, represented as [34:6]; Amputations [25:0]; Fractures [14:3]; Tumours [10:4]. Some of the single cases were also accompanied by photographs; for example, lithotomy, lateral sclerosis and limb lengthening.

<sup>92</sup>RCPSG10/9/3, 2. A.K. Bowman's (1942) account of the case stated that after this had taken place an 'inspection of the grafts was thereby permitted and visual evidence of the success was obtained', see page 142.

<sup>93</sup>See RCPSG 10/9/3, see page 1 [76:176]. News of Macewen's pioneering work was reported in the medical press, see Macewen, W. (1882) 'Transplantation Osseuse', *Revue de Chirurgie*, 2: 13. [77:176]. In this article the photographs included in the PJ were used as the basis for line drawings.

<sup>94</sup>One taken in later, of W.C. standing with his arms raised in Volume V of Macewen's PJ, (RCPSG 10/9/5, pages 36-37, [78:176]. The pose is remarkably similar to one taken by Macewen thirty years after the operation, and published in Macewen, W. (1912) *The Growth of Bone: Observations on Osteogenesis an Experimental Inquiry into the Development and Reproduction of Diaphyseal Bone* (Glasgow: James Maclehose & Sons), page 181 [79:176]; page 185 [80:176]. Only on this occasion the patient's facial features were anonymized with the aid of an inverted triangle printed on the page.

<sup>95</sup>RCSPG10/9/15, Macewen's Notebook.

Küster at the Augusta Hospital, where he sketched sponge holders, rasps and retractors. He then moved on to see Dr Starke at the Charité in Berlin, then on to Langenbeck's Klinik.

In February the following year, whilst Honorary President of the GRI Medical Society, he gave his inaugural address on 3<sup>rd</sup> March entitled 'Reminiscences of a Tour through Germany'.<sup>96</sup> Here, Macewen 'dwelt especially on the arrangements of continental hospitals contrasting them with the British hospitals, he also showed several instruments, photographs, models of splints etc. Among others that of an operating table such as used by Billroth of Vienna was greatly admired.'<sup>97</sup> By November the same year, the opening of the new GRI Medical School on Castle Street was reported in the local press. The plans were very carefully prepared to meet the requirements of scientific medical teaching, and the several rooms had been fitted up with the most recent appliances.

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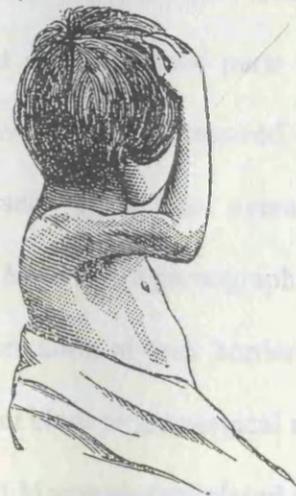
<sup>96</sup>GRI Medical Society Minutes, 3<sup>rd</sup> March 1883. Macewen was Honorary President by 17<sup>th</sup> February 1883.

<sup>97</sup>Ibid.

<sup>97</sup>Bowman, (1942) *The Life and Teaching of Sir William Macewen*, 302.

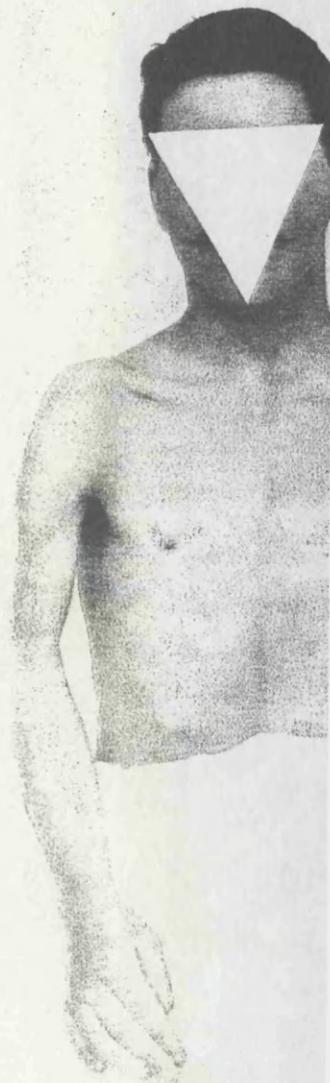


76



Ces deux figures montrent les mouvements que peut faire l'enfant et qui impliquent la solidité du squelette du bras.

77



This included a room which was at that time unoccupied, but intended for a surgical museum and workroom in connection with the surgery lectureship. Macewen may have been destined to occupy these premises, becoming a Lecturer in Systematic Surgery from 1881; and at the amalgamation of this school with St Mungo's Medical School in 1889, became Professor of Clinical Surgery.<sup>98</sup>

### *Kemp's Accessory Images and Border information*

The historian of art, Martin Kemp, stated that 'the photographic image ... can rarely avoid the seepage of "border information" unless the image is trimmed or otherwise doctored, [and this] meant that the problem of accessory messages remained insistent.'<sup>99</sup> Kemp is referring to the background within images, rather than the actual edges of the print. He goes on to state that although these parts of the image are 'medically redundant', the fact that they have not been removed by cropping, for instance, implies that they do not adversely affect the overall meaning and understanding of the image. The majority of Macewen's photographs in the PJS were not cropped, thus they contain important information in their borders. These details, coupled with textual sources, provide important clues to his surgical and photographic practice. Writing in 1939, Dr John A.C. (Jack) Macewen reminisced about his father's operating theatre and his transition from antiseptis to asepsis, stating that:

I can remember when a small boy, about the year 1880, being taken up to the Royal to view my first operation. My father was, probably, unique, in having a small operating theatre, specially constructed, with tiled floor and walls, although there were wooden seats for students. He and his Staff were all clad in sterile white gowns, with caps and masks. The instruments had been boiled in a fish kettle, specially plated for the purpose; sponges were soaking in carbolic solution,

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<sup>98</sup>Ibid.

<sup>99</sup>Kemp, (1997) 'A Perfect and Faithful Record', 120-149.

and, of chief interest to me was the spray, which consisted of a boiler heated by methylated spirit lamp, the steam so generated blowing a jet of steam, mixed with carbolic solution, in a fine spray over the field of operation including instruments, sponges, hands, etc. It will thus be seen that my father, at this date, had practically gone over from antiseptic to aseptic practice, but the spray was still being used, and dry dressings had not yet come into use.<sup>100</sup>

The wooden seats of the operating theatre which Jack referred to, can be seen in the background of many of the photographs in the PJS. Although Macewen himself took many of the photographs, on one occasion he was photographed with one of his patients at the GRI.<sup>101</sup> [81:179]

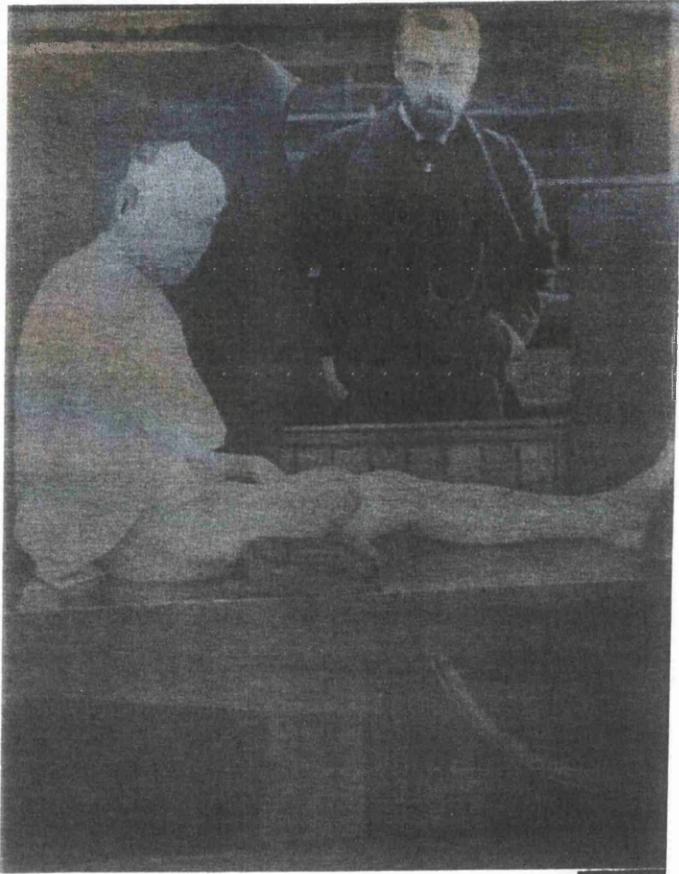
Thus, Macewen's operating theatre doubled as a makeshift photographic studio. It is likely that he took photographs using a plate-camera, which consisted of a lens and plate-holders, divided by a series of bellows, which could be adjusted to alter the depth of field. The camera would probably then have been supported on a tripod.

This was the era of dry-plate photography. The glass plates were purchased already coated with emulsion. In the dark, the plates would be inserted into the camera's plate-holders ready for exposure. The cover of the plate-holder would be

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<sup>100</sup>Macewen, J.A.C. 'Notes on Lord Lister' (pages un-numbered) circa 1939, RCPSG10, Box 6, File 7. William Macewen published articles describing his 'antiseptic system' from 1873 until 1881. Years later however, he acknowledged 'what was essential in the early days of its introduction became no longer necessary as the advance of knowledge brought clearer conceptions and paved the way for radical changes in the form of treatment'. Macewen, W. (1912) 'Lord Lister', *Transactions of the Royal Institution* (London: Wm. Clowes & Sons, Ltd.), 1-19. In his biography, published in 1924, A.K. Bowman suggested that Macewen was 'able to accomplish what he did only through an instinctive appreciation of the deficiencies of the purely antiseptic method, and a rapid development of aseptic practice ... by 1875 his whole practice was to all intents and purposes aseptic, that is, he took active measures to prevent the entrance of micro-organisms to uninfected tissues.' Such precautions were, however, synonymous with antiseptis.

<sup>101</sup>RCPSG10/9/5, 11, P.R. was admitted to the GRI 31<sup>st</sup> March 1884 his right leg had been shattered as a result of a tramway accident. Macewen performed a Lister's Carden amputation.



81

pulled upwards, to reveal the emulsion side of the plate. Once the exposure had been made, the cover of the plate-holder was slid back into place, and then the whole unit could be then taken to the darkroom and processed. Once the photograph had been taken it was likely that the glass plates were processed soon afterwards. The processing and printing may have been done in a makeshift darkroom set up in the GRI.<sup>102</sup> It appears that Macewen took photographs using the available natural light, although this was probably far from ideal. His operating theatre was equipped with windows, which are visible in one or two photographs, and the amount of light was evidently controlled by drapes.<sup>103</sup> [82:181] The exposure times would have been seconds, rather than minutes. However, in some instances the photographic plates record traces of activities, such as the holding of a patient's head in position, to prevent blurring of the details.<sup>104</sup> [83:182] For Kemp, medical photographs contain important clues about the 'attitude of the originators' of the images. For example, he argues that the way the scene is staged, or the pose adopted, can provide clues about the status of the patient, and 'the stylistic modes both in medical illustration and, more broadly, in terms of conventions of artistic portrayal in photography.'<sup>105</sup>

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<sup>102</sup>A search of the GRI Minute Books and plans for the GRI has not yielded any information regarding the practice of photography.

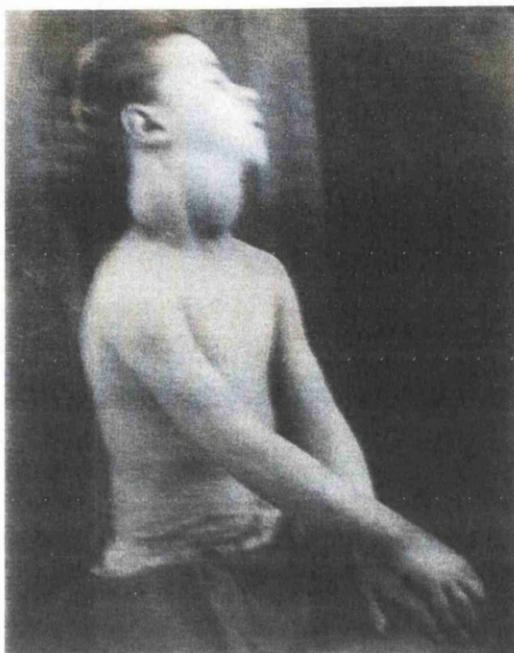
<sup>103</sup>Molluscum fibrosum, undated, HB14/19/56. This image is now in Macewen's teaching collection. The item is numbered T95, and was used in a 'Tumour Demonstration', described in Chapter Six, Parts I and II of this thesis.

<sup>104</sup>RCPSG10/9/4, 50, Hydrocele of the neck, 1883.

<sup>105</sup>Kemp, (1997) 'A Perfect and Faithful Record', 123.



82



83



84

Many of Macewen's patients were photographed one or two days after admission, as suggested by the accompanying case notes in the Journal and the corresponding GRI ward journal entries. The patient would enter the operating theatre, and then would be requested to sit on Macewen's bare operating table, or a chair, or stand on a stool.<sup>106</sup>

[84:183] Sometimes the patient's pose was aided with a pole, stand or by the hand of an assistant. The patient would sit or stand in front of a makeshift backdrop, usually a dark coloured blanket, which was sometimes held by an assistant.<sup>107</sup> [85:185]

Photographs were also taken, though more rarely, during surgery. Not only would this have required a slight pause during the procedure, but also it seems that the introduction of the camera into the operating theatre did not appear to conflict with Macewen's antiseptic-aseptic principles.

Photographs were also taken of specimens and diseased tissues following their removal. Initially in the PJS, specimens appear in conjunction with cropped shots or portraits taken before or after surgery. The amount of dressing the specimen received before for the camera, varied. Some were placed on a table and photographed, while others were dissected, sectioned, strung and pinned etc.<sup>108</sup> [86-87:186] It was not until later that single shots of the specimen were used to represent the whole case.<sup>109</sup>

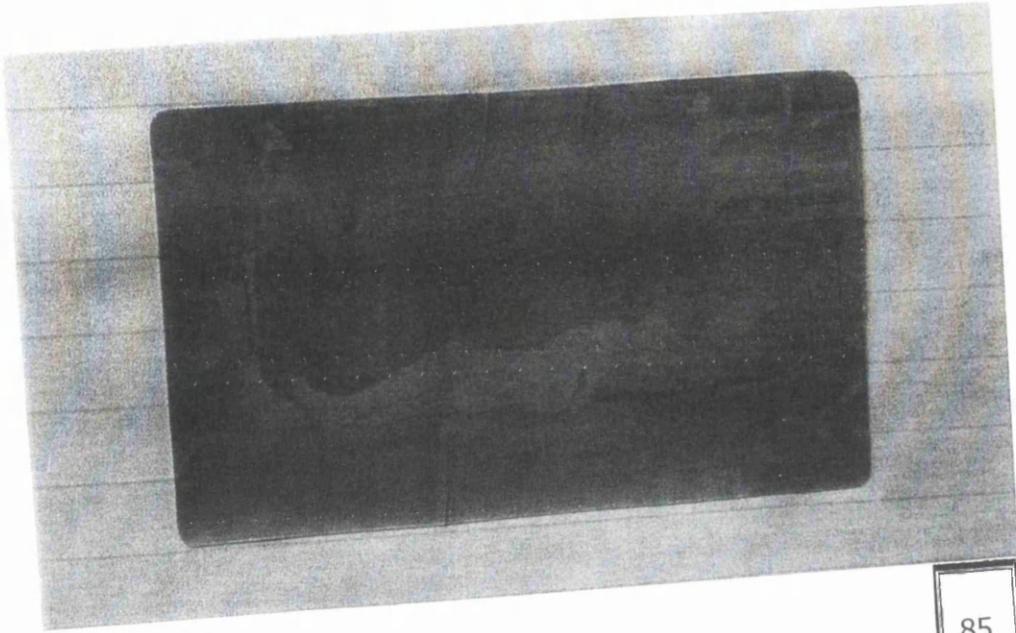
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<sup>106</sup>Hernia, ventral after laparotomy, HB14/19/13, numerical system 'H158, Table 17'.

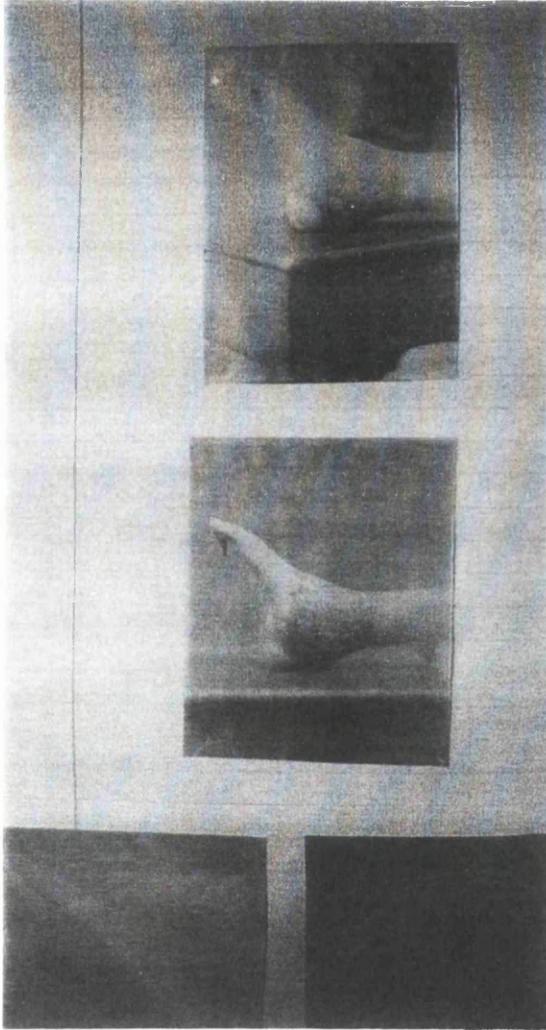
<sup>107</sup>Pathological dislocation of the hip, 1887, RCPSG10/9/8, page 64.

<sup>108</sup>[86:186] Disease of Tarsus, Syme's amputation, 1883, RCPSG10/9/4,11; [87:186] Epithelioma of the tongue, (1885), RCPSG10/9/5, 37.

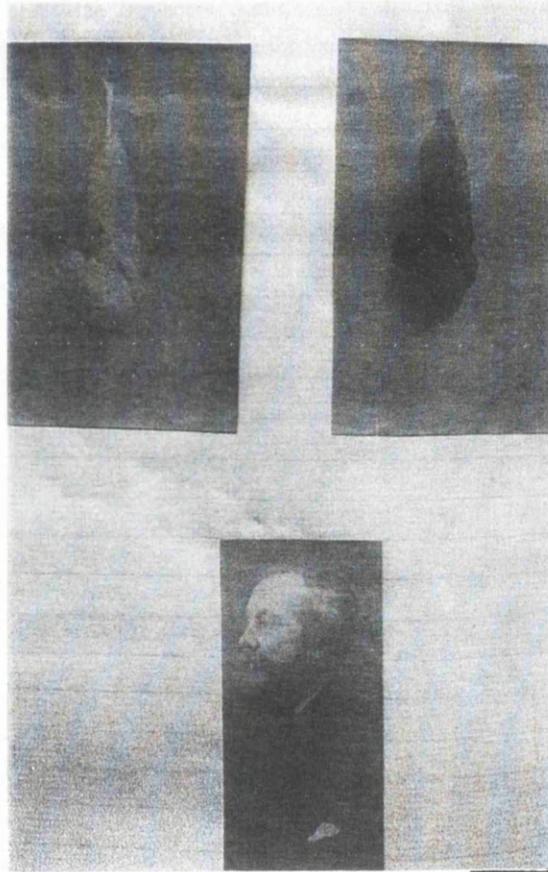
<sup>109</sup>Sometimes plaster casts were made of diseased limbs, and photographed for inclusion in the PJS.



85



86



87

Photographs were also taken following surgery, and during on-going recovery of fractured limbs in splints, for example.<sup>110</sup> [88-90:188] Patients who had undergone excisions of joints, for instance, were photographed displaying their revitalised limb. On some occasions great effort would be made to create a visual demonstration of renewed strength in a limb, for instance when the former patient would be photographed holding a weight.<sup>111</sup> [91-93:189] Some former patients who had successfully recovered from the excision of an elbow joint were photographed in small groups.<sup>112</sup> [94-95:190] Methods of visual pointing, i.e. the highlighting of areas through the application of colour on the print, were employed by Macewen to focus the viewer's attention, or to clarify a detail in the image.<sup>113</sup>[96:191]

Most patients were photographed from more than one angle, thus multiple shots were taken. These were eventually replaced by single shots of specimens or triple shots, taken from the front, back and side, which have a statuesque quality with the patient standing on a plinth.<sup>114</sup> [97-98:192]

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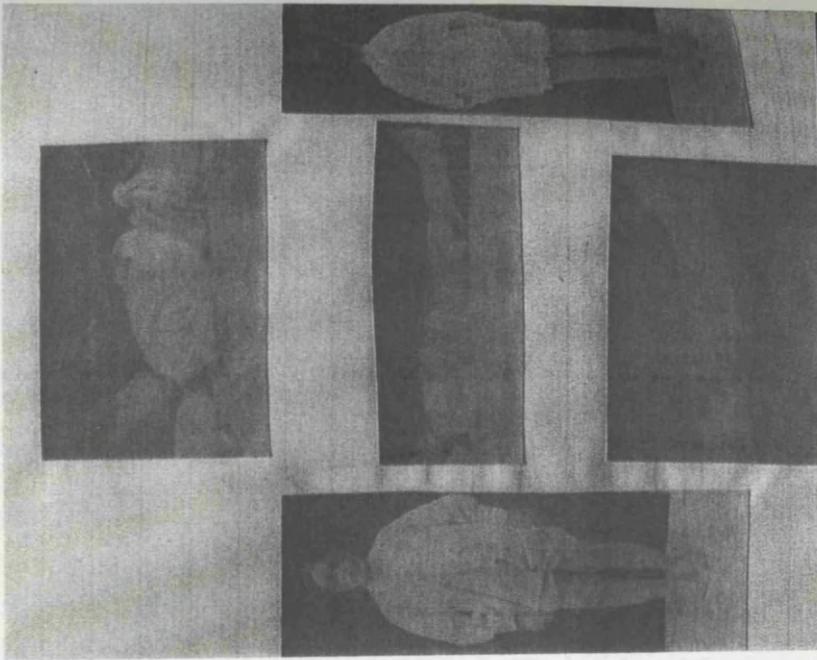
<sup>110</sup>[88:188] Compound fracture of tibia, 1884, RCPSG10/9/4, 89; [89:188] Double knock knee, 1884, RCPSG10/9/5, 85; [90:188] Knee joint disease with ulceration, 1884, RCPSG10/9/5, 112.

<sup>111</sup>[91:189] Excision of shoulder joint, 1890, RCPSG10/9/8, 56; [92:189] Excision of shoulder, 1890, RCPSG10/9/8, 100; [93:189].

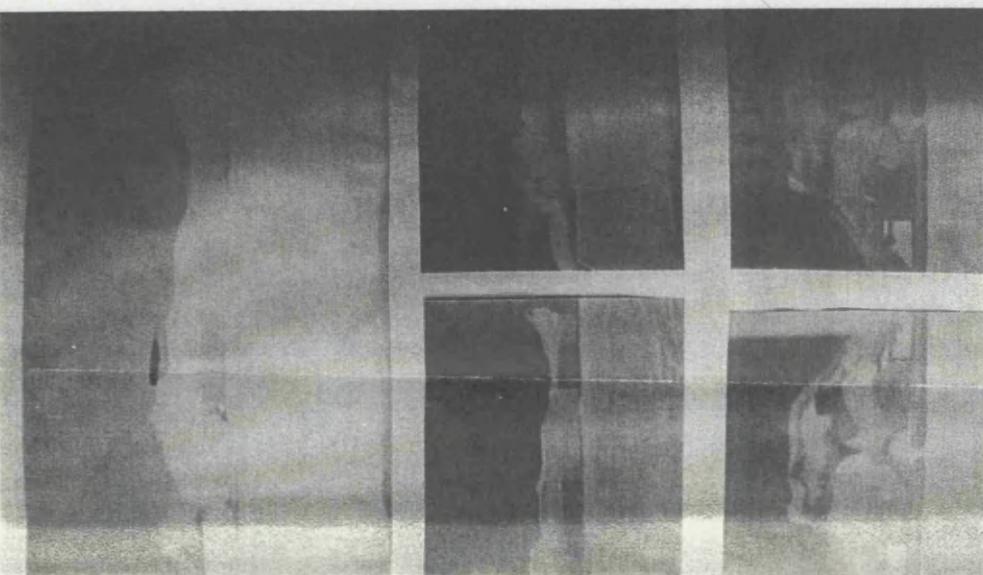
<sup>112</sup>[94:190] Excision of joint, 1883, RCPSG10/9/4, 48; [95:190] Excision of shoulder joint, RCPSG10/9/6, 23.

<sup>113</sup>[96:191] Infiltration of blood between dura mater and skull, 1884, RCPSG10/9/4, 51.

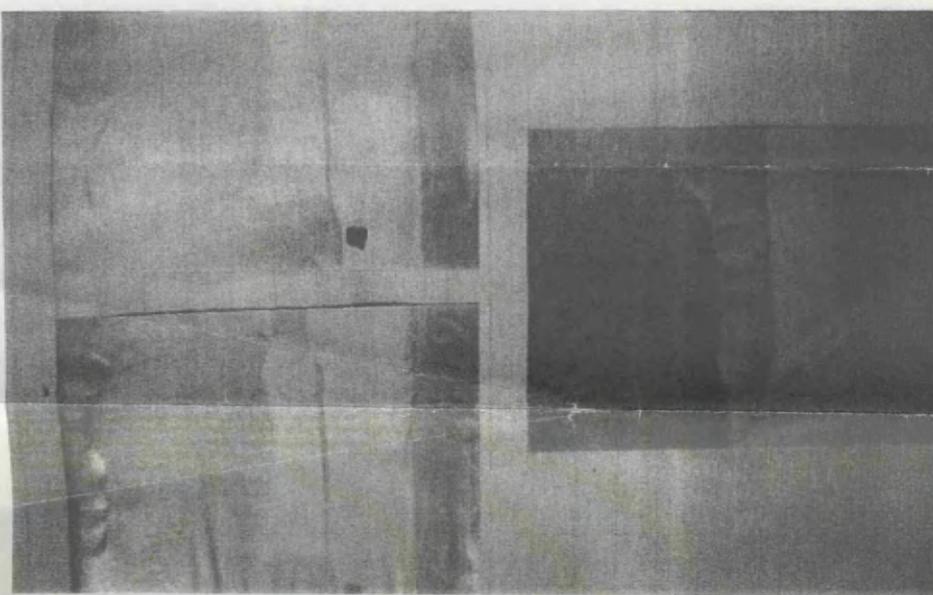
<sup>114</sup>[97:192] Amputation mid third of thigh, 1887, RCPSG10/9/6, 61; [98:192] Dislocation of head of femur and dorsum of ileum, 1888, RCPSG10/9/7, 124.



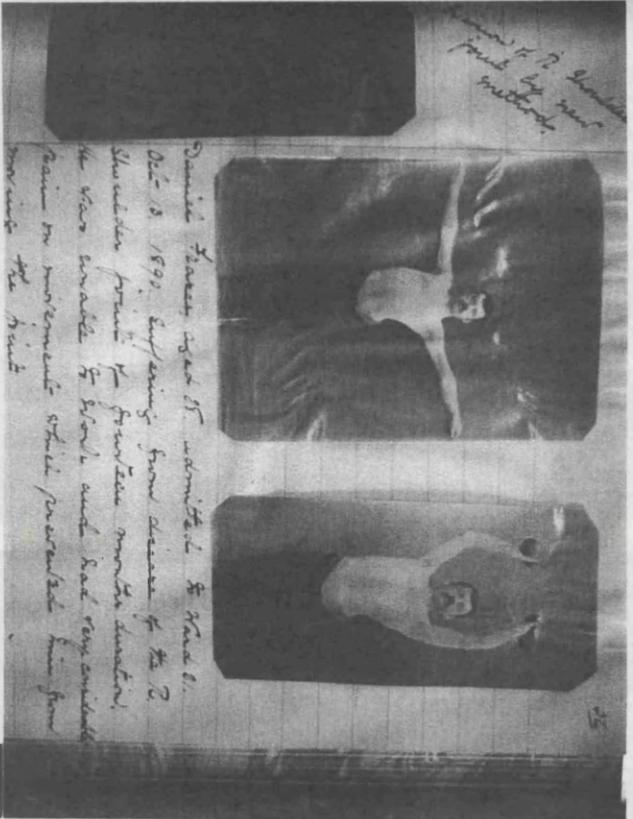
90



89

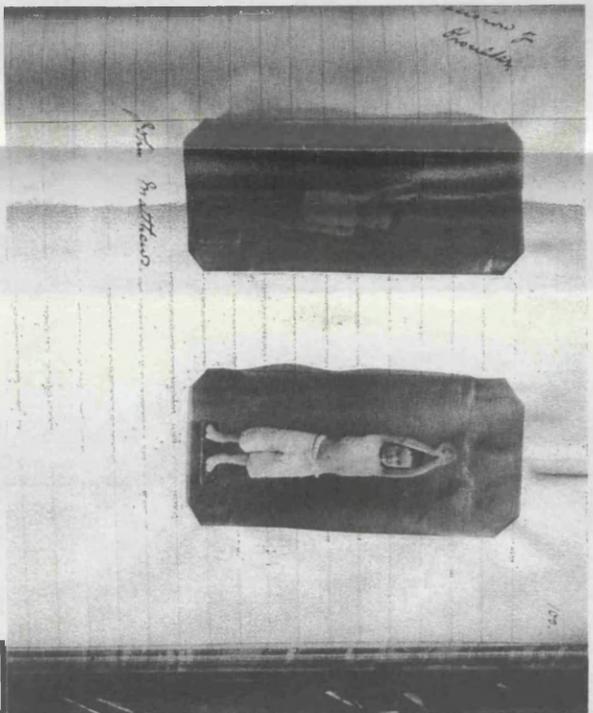


88



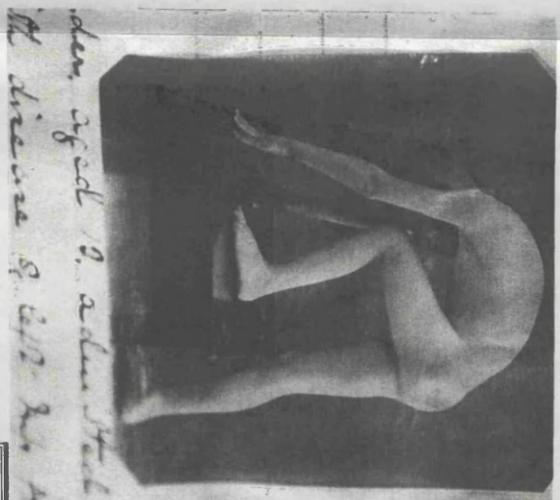
Daniel Faess aged 35 admitted to Ward 8.  
 Oct 3 1891. Suffering from disease of the 2  
 shoulders first the front then the back.  
 He was unable to stand and had very considerable  
 pain in movements still persisted him from  
 moving the hand

91



Mrs. B. Adams.  
 [Faint handwritten notes below the photos]

92



d. disease of the back

93

94

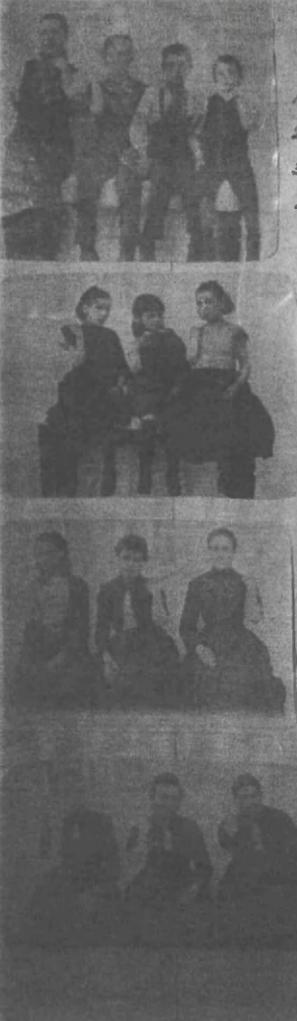
Photo. made by Dr. Seaman, J. H. H.

48.

Here are seven photographs of sections of the elbow taken at various times, showing the power of flexion of the joint.



94



1. John Murray	5th
2.	
3. George Riley	11th
4. William Martin	10th

1. Helen Johnston	11th
2. Christina McComan	11th
3. Maggie Shaw	11th

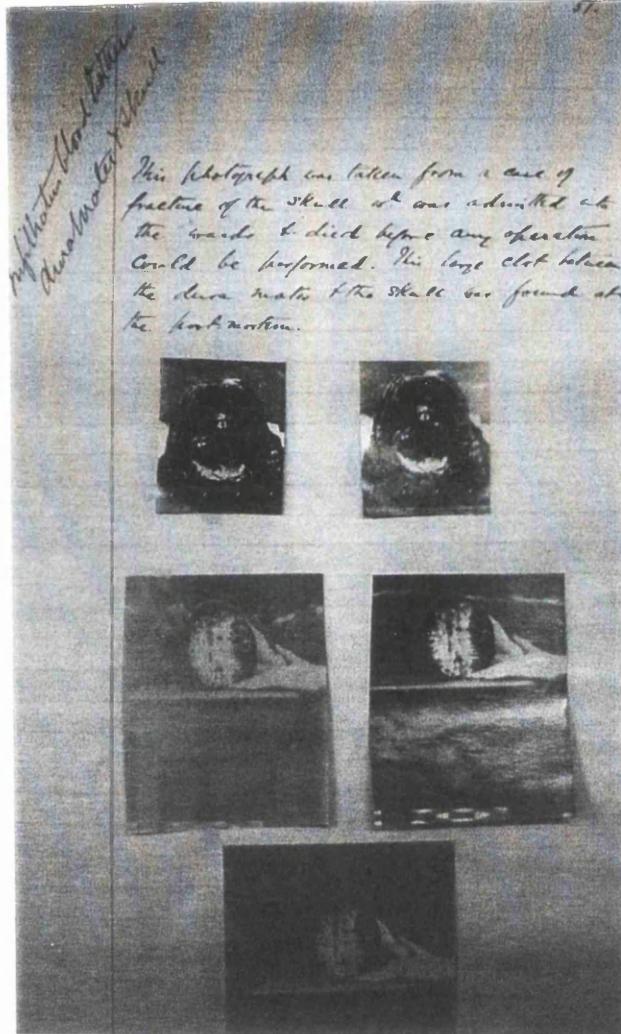
1. Maggie McHale	11th
2. Maggie Shonson	11th
3. Mary Hunter	11th

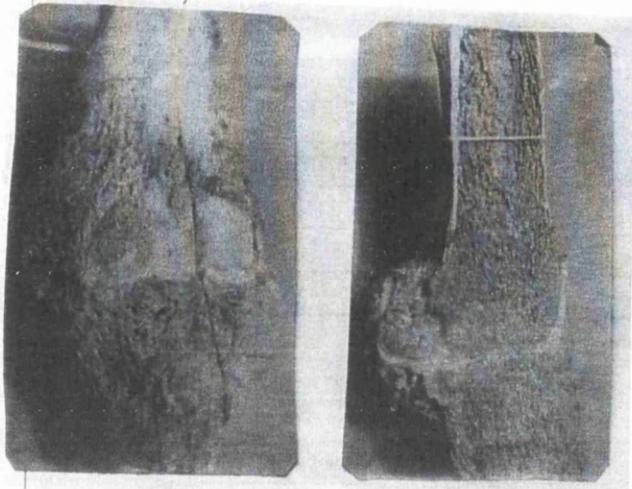
  

1. Alice Schifala	11th
2.	
3. Mrs. McComan	11th

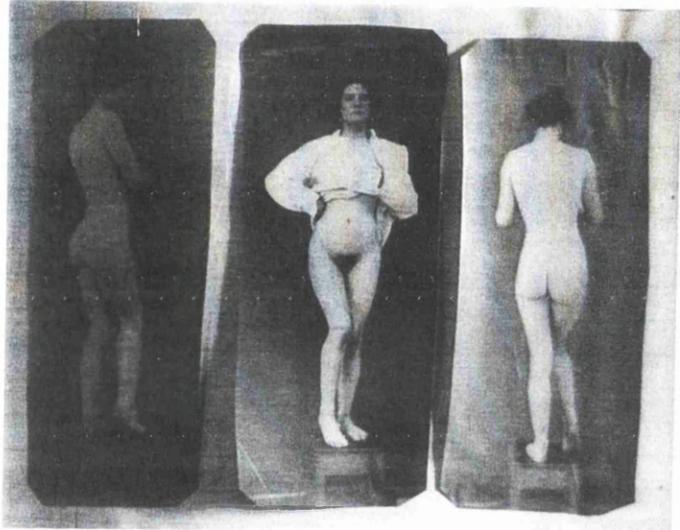
96

95





97



98

Volume III of PJ contains the earliest photographs, dating from 1881; these are collodion prints.<sup>115</sup> Many were printed on pre-cut papers with rounded edges, a characteristic of the *carte-de-visite*. These so-called collodion ‘print-out papers’ were exposed, washed and sometimes toned, then dried.<sup>116</sup> Volume V of the PJ which dates from 1884 to 1885 sees Macewen using gaslight papers instead of the print-out papers.<sup>117</sup> Gaslight papers were coated with either chloride or bromide emulsion. These papers allowed manipulation in ordinary artificial light, without the necessity of a darkroom, and were intended for contact printing only. Thus Macewen would not have required either a darkroom or an enlarger to make gaslight prints.

Afterwards the prints were pasted into the PJS, either alongside or between pre-existing case notes, or on a dedicated page. Each volume of the journal is accompanied by an index, which is organised by disease and procedure. From Volume IV, circa 1883 to 1884, onwards the photographs are also recorded in the index of the PJS.

Some of the case notes in the PJS make explicit references to their accompanying photographs. This information contains important clues to the meaning of photography for Macewen and his assistants: For example:

The photograph will represent the form.[1882]<sup>118</sup>

The photograph annexed shows the place of pointing at the bulge, wh. is underneath.[1882]<sup>119</sup>

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<sup>115</sup>I am grateful to Professor Larry Schaaf for identifying these prints. It is conceivable that the first volumes of the PJS to contain photographs also include albumen prints, these were common from 1855-1895; see Reilly, J.M. (1980) *The Albumen & Salted Paper Book: The History and Practice of Photographic Printing 1840-1895* (New York: Light Impressions), 123.

<sup>116</sup>Ibid.

<sup>117</sup>This is according to Professor Larry Schaaf.

<sup>118</sup>RCPSG10/9/3, 172.

<sup>119</sup>RCPSG10/9/4, 44.

He walked entirely on outside of foot, a large firm fossa having been formed over the ... and the relative position of the foot may be best seen by reference to the accompanying photographs.[1885]<sup>120</sup>

### ***Intubation***

Macewen's work on intubation can be divided into two categories, firstly, experimentation on intubation of the larynx and secondly, his work on anaesthesia. His work on intubation of the larynx began in 1870, while working as a Medical Superintendent at Glasgow's Belvidere Fever Hospital. Here, Macewen encountered patients with a diphtheric obstruction of the glottis. He therefore began to formulate ideas about laryngeal intubation as an alternative to tracheotomy in cases of diphtheria. Macewen also used intubation for operations on the face or mouth in order to prevent blood entering the trachea and for the purpose of administering anaesthetic.

Macewen practiced inserting rubber or gum elastic catheters on himself, and in cadavers.<sup>121</sup> He stated that 'the introduction of the tube requires practice on the cadaver; when this can be accomplished on the dead body, it will be found easy to introduce it afterwards on the living.'<sup>122</sup> Inserting the tube into a cadaver was achieved by 'introducing the finger into the mouth, depressing the epiglottis on the tongue, and so guiding the tube over the back of the finger into the larynx'.<sup>123</sup> The

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<sup>120</sup>RCPG10/9/5, 97.

<sup>121</sup>Macewen, W. (1880) 'Treatment of Croup and Diphtheria by the Introduction of Tubes Through the Mouth', *British Medical Journal*, **II**: 523.

<sup>122</sup>Ibid. 54.

<sup>123</sup>Macewen, W. (1880) 'Introduction of Tracheal Tubes by the Mouth Instead of Performing Tracheotomy or Laryngotomy', *British Medical Journal*, **II**: 122-124, 163-65.

patient's head was then flexed, bringing the chin to the chest, and the tube was gradually inserted.

Macewen concluded that it was easier to introduce catheters of a large calibre 'such as Nos. 18 to 20 gauges, more than instruments of the size 8-10 ... which were liable to catch on various irregularities of the internal laryngeal surface'.<sup>124</sup>

From 1876, while on Dr Dewar's ward, Macewen began to publish the results of tracheal intubation for the treatment of oedema glottidis, diphtheria, and epithelioma of the pharynx and tongue.<sup>125</sup> The first is an account of a patient admitted to the GRI suffering from oedema glottidis in September 1878.<sup>126</sup> Although opening the windpipe was an option, Macewen preferred to use a tracheal catheter instead. 'A No. 12 gum elastic catheter was, in the first place, passed through the glottis'.<sup>127</sup> The patient held the tube in his own hand, removing it to cough, at which point Macewen cleansed the tube and re-introduced it. During the operation, the tube would allow the patient to respire. In all, it was kept in for thirty-six hours. After this time had elapsed

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<sup>124</sup>Ibid. 122. See for example Allen & Hanbury's *Catalogue of Surgical Instruments and Medical Appliances* (London: Allen & Hanburys Ltd. 1938), 572.

<sup>125</sup>Macewen, W. (1879) 'The Introduction of Tubes into the Larynx and through the Mouth Instead of Tracheotomy and Laryngotomy', *Glasgow Medical Journal*, 11: 72-75; 'The Introduction of Tubes into the Larynx. See also Macewen, W. (1879) 'The Introduction of Tubes into the Larynx and through the Mouth instead of Tracheotomy and Laryngotomy', *Glasgow Medical Journal*, 12: 218; Macewen, W. (1880) 'The Introduction of Tracheal Catheters by the Mouth in Lieu of Tracheotomy or Laryngotomy', *British Medical Journal*, 2: 122, 198; Macewen, W. (1880) 'Tracheal Tubes Introduced Through the Mouth for the Administration of Chloroform during an Operation for the Removal of an Epithelioma from the Tongue and Pharynx', *The Lancet*, 2: 906; Macewen, W. (1880) 'Treatment of Croup and Diphtheria by the Introduction of Tubes Through the Mouth', *British Medical Journal*, 2: 523; Macewen, W., 'Tracheal Catheterism', in Heath, C. (1887) *Dictionary of Practical Surgery*, Volume II, (London: Smith, Elder & Co.), 652-654.

<sup>126</sup>Macewen, (1879) 'The Introduction of Tubes into Larynx', 72-75.

<sup>127</sup>Ibid.

the oedema was found to be reduced and, therefore, the tube was removed. The patient went on to make a full recovery.<sup>128</sup>

In 1947, Hugh Macewen donated circa one hundred of his father's instruments to the Royal College of Surgeons of England.<sup>129</sup> Many of the items were related to intubation, but the index to the collection does not record which of the tubes, if any, Macewen designed himself.<sup>130</sup> Nevertheless, the collection is a surviving testament to the variety of instruments that Macewen used in the practice of intubation.<sup>131</sup>

As well as artefacts, there are case notes and photographs relating to intubation. In 1878, W.P. was admitted to the GRI suffering from an 'epithelioma from the pharynx and the base of the tongue'. Instead of performing a laryngotomy, Macewen again opted to use intubation. Prior to the operation, the patient had a tube inserted 'through the mouth into the trachea, beyond the vocal cords; ... he bore the tube sufficiently well to warrant the success of the procedure.'<sup>132</sup> On 5<sup>th</sup> July, the tube was introduced, and:

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<sup>128</sup>Macewen also used tracheal tubes in the treatment of croup. On 2<sup>nd</sup> September 1881 M.D., a patient of Dr Perry. was brought to the GRI with symptoms he considered 'so grave as to require tracheotomy. At 10 p.m. the patient's mouth was opened very wide by a gag, a tracheal tube bent on a catheter threaded with a stilette was introduced without difficulty. The tracheal tube was a number 14. The tube was left in place for fourteen hours, then withdrawn and cleaned. However, re-inserting the tube proved problematic, as the shield surrounding the tube kept impinging on the patient's teeth. On the second attempt, mucous had to be removed from the tube with a brush. On the third attempt, the tube passed over to the upper portion of the glottis, but there bent upon itself so much that the finger had to be introduced to pass it down. It must be further noted that before attempting to touch the epiglottis the mouth ought to be held widely open as the epiglottis is apt to slip downwards while the patient attempts to swallow,'see RCPSG10/9/2, 261-265.

<sup>129</sup>One hundred and twelve items are indexed under Macewen's name in the Historical Instrument Collection. They were originally in an instrument cabinet (made of glass with an iron frame) which, unfortunately, no longer survives. The instruments are now part of the Wellcome Historical Museum in the Royal College of Surgeons, England.

<sup>130</sup>The index to Macewen's instruments includes 'tracheostomy introducer, 1850', 'Weiss's tracheostomy tube' etc. but there are no specific references to Macewen's designs, nor to the material from which the tubes are made.

<sup>131</sup>This includes tracheal tubes designed by Pollocks, Edwards, Hilton and Trousseau. There are also tracheotomy introducers, tracheal hooks, tracheal dilators, cannulae and trochars.

<sup>132</sup>Ibid. 122.

The upper opening of the larynx was stuffed with a sponge to prevent the entrance of the blood. The tube projected several inches beyond the mouth, thus enabling the administration of the anaesthetic without in any way interfering with the manipulative procedure. The operation was performed by making an incision through the right cheek from the angle of the mouth to the angle of the lower jaw, the latter being sawn through, the diseased surfaces were thoroughly removed by the knife, the sawn angle of the jaw was afterwards drilled and coupled by two strong silver stitches.<sup>133</sup>

When the operation was over and the bleeding had stopped, the tube was removed.

Some time afterwards, W.P. was invited to attend the Glasgow Medico-Chirurgical Society in May 1879.<sup>134</sup> Eleven years after the operation, in July 1889, the patient was again photographed. On the portrait, the scar is visible on W.P.'s cheek. The case notes in the PJ recorded that the patient was seen by Dr Macewen, for any possible recurrence of the disease<sup>135</sup>

Another account of intubation was entered in the PJ in December 1882. Ms. O. was admitted to the GRI suffering from a tumour on the left side of the face.<sup>136</sup> She was photographed before surgery, perhaps to show the location and nature of the tumour. At least two photographs were taken from slightly different angles. One was included in the PJ; the other was mounted onto a board and included in Macewen's collection of clinical photographs.<sup>137</sup> On 31<sup>st</sup> December, in order to 'prevent the flow of blood into the trachea a laryngeal tube was passed with a ring of India rubber so as to fit the upper portion of the glottis ... the tumour was easily removed and the inside

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<sup>133</sup>Ibid.

<sup>134</sup>Macewen, W. (1879) 'The Introduction of Tubes into the Larynx', 218. This was not recorded in the Minutes of the Glasgow-Medico-Chirurgical Society.

<sup>135</sup>Volume III, RCPSG10/9/3, 132.

<sup>136</sup>The patient was photographed at least twice, prior to surgery. One photograph was included in the PJ another taken from a different angle was included in the clinical collection, HB14/19/12. The case notes include the results of microscopic findings (spindle celled carcinoma).

<sup>137</sup>HB14/19/2, 'Cancer, Head, Neck and Throat.'

of the cavity was dusted with iodoform and four stitches put in wound of gut.'<sup>138</sup> The cuff of India rubber was seen as an advance over the sponge, protecting 'the larynx and air passages from the entrance of blood'.<sup>139</sup>

In April 1883, A.N. was admitted to the GRI suffering from an epithelioma of the left tonsil, which extended over the back of the pharynx.<sup>140</sup> On 21<sup>st</sup> April:

[A]n incision was made from the angle to the lower lip on the left side, to the angle of the jaw. The bone at this point was divided with a chain saw and the parts divided so as to fully explore the posterior side of the pharynx. The diseased tissue was thoroughly removed by free incision ... there was a considerable amount of haemorrhage wh. was prevented from entering the larynx by the insertion of a tracheal tube thro' the mouth, guided in the usual manner by a ring of India rubber. Tho' the bleeding was profuse, none passed down the trachea. The two portions of the jaw were drilled and united by wire sutures, and a series of chromic gut stitches were sewn into the soft parts. The wound was then freely dusted with iodoform wh. had also been applied freely to the interior of the mouth.<sup>141</sup>

At the end of the journal entry are three photographs, two of which 'were taken from a case of Dr. Clark's where the tube was used the same as above'.<sup>142</sup> [99-100:200] They show the patient lying down, presumably on a table, covered with dark coloured and white sheets. Most of the activity is in the top half of each frame, where the patient's jaw is open rather widely, suggesting that it may have been dislocated.

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<sup>138</sup>RCPSG10/9/4.

<sup>139</sup>James, C.D.T. (1974)'Sir William Macewen and Anaesthesia', *Anaesthesia*, 29: 743-753.

<sup>140</sup>RCPSG10/9/4, 28-29.

<sup>141</sup>Ibid. 28. A minimal account of the case is included in the GRI ward journal, HB14/5/8, 184, although no mention is made of intubation.

<sup>142</sup>Ibid. 29.

<sup>142</sup>Ibid.

One of the operators stands behind the patient's head, and in his right hand a tracheal tube is clearly visible.<sup>143</sup> Another individual can be seen looking straight ahead into the camera, whilst there are numerous hands holding other instruments which are difficult to identify. The image on the right is much less 'busy' than that on the left. It is striking, however, that the operator and assistants are all wearing outdoor suits, with bow ties, etc. The white coat is nowhere in evidence. These may be amongst the first photographs of intubation, which will, no doubt please some historians.<sup>144</sup>

During the later 1880s, Macewen adapted his practice of intubation on two counts: firstly with the invention of 'flexo-metallic tubes of brass and stainless steel' he changed the type of tube he used. Furthermore rather than introducing such large tubes as the No. 18 and 20, Macewen now preferred to insert a catheter of less calibre than the capacity of the larynx, which could be admitted more readily, and subsequently a larger one may be inserted. In addition, the insertion of tubes was now simplified with the aid of a laryngeal mirror and the protection of the larynx by the India rubber cuff. Macewen was well aware, however, that the success of intubation

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<sup>143</sup>Dr Henry E. Clark was surgeon to the GRI from 1882 to 1906.

RCPSG10/9/ 5, 61. The final case of intubation included in Macewen's PJ was recorded in 1884. On this occasion, two photographs were taken of the diseased body parts following their removal, and pasted above a portrait of A.N. following his recovery.

<sup>144</sup>I have searched for earlier and contemporary photographs of intubation without success.



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rested upon the successful training of medical staff and patients alike. Only when this had been achieved, could intubation offer a viable alternative to tracheotomy and laryngotomy.

## *'Orthopaedics'*

Macewen probably did not consider himself to be an orthopaedic surgeon.<sup>145</sup> Amputations and excisions of joints, and the removal of tumours are the most common subjects entered in Volumes II [1879-1881] and III [1881-1883] of the PJS. Volume III, covering 1881-1883, sees the first use of the word "aseptic" rather than 'antiseptic'.

A photograph taken late in 1881 and included in Volume III shows the operator wearing a dark-coloured coat.<sup>146</sup> The case notes record that, in 1881, J.G. was admitted to the GRI affected with necrosis of the left fibula.<sup>147</sup> Initially the two sinuses were stuffed with protective plaster in order to arrest haemorrhage. Then, on 6<sup>th</sup> November 1881:

[A] piece of sponge prepared as Hamilton directs was introduced through the lower aperture in such a manner as to occupy the lower half of the tunnel in the new bone, and to project through the cloaca at the distal extremity of the fibula filling the sinus and projecting slightly above the level of the skin. The upper half of the tunnel and its corresponding cloaca and fistula were left empty. The wound was aseptic to commence with and the sponge was introduced under the spray, the discharge kept aseptic throughout. Sponge was inserted into the lower aperture and left there.<sup>148</sup>  
[101:204]

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<sup>145</sup>Jack Macewen stated 'A cult has arisen in our profession in recent years, which calls itself orthopedists, and are distinguished by their superiority to the rest of the profession, not only in their opinion, but in that of hard headed business men who so very kindly give their services as hospital managers', DC79/43 (circa 1939).

<sup>146</sup>There is some confusion about Macewen's surgical garb: some refer to him wearing a sterilizable apron, rather than a white coat.

<sup>147</sup>RCPSG10/9/3, 45-49.

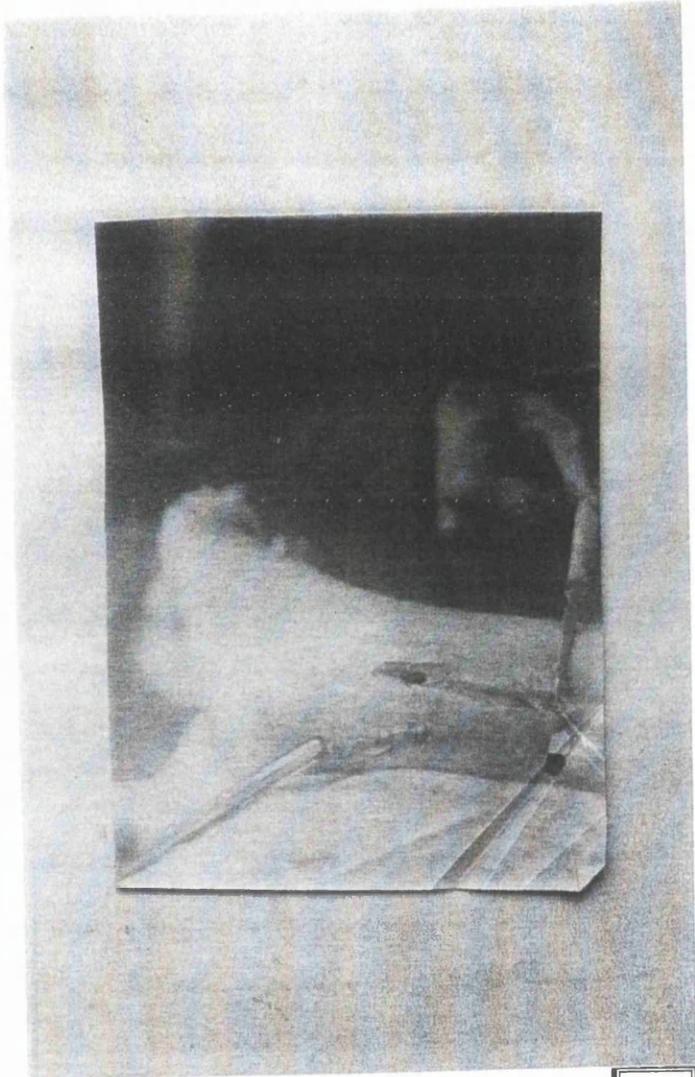
<sup>148</sup>*Ibid.*

Again the surgeon is wearing a dark coloured coat, even though one of the most potent symbols of aseptic surgery was the white coat. Three weeks after the sponge had been introduced, a 'cone-shaped' portion was removed for microscopical examination. The 'reticulated structure of the sponge was evident and in no place could one discern any trace of absorption or erosion ... the intervening matter was made up with granulation tissue in which could be discerned the transverse section of blood vessels ... the granulation cells had assumed a spindle shape.'<sup>149</sup>

This was the last reference to 'the spray' in the PJ. Crucially, however, Macewen describes his practice as aseptic even though the spray — a symbol of antiseptic surgery, was still in use.

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<sup>149</sup>Ibid. 47-48.



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Commentators have suggested that Macewen's abandonment of the spray occurred somewhat earlier. Peter Jones repeats Bowman's comments, which stated that he could not 'find any record of its use by Macewen later than 1879, and we may say that he had discontinued its employment before the attack which was made on the apparatus by Paul Bruns of Tubingen in 1880'.<sup>150</sup> However, the case of J.G. seems to contradict both Bowman's and Jones's statements. It appears that Macewen may have abandoned the use of the spray late in 1881, six years before Lister followed suit.

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<sup>150</sup>Bowman, (1942) *The Life and Teaching of Sir William Macewen*, 69-70.

In October 1881 W.B. was admitted to ward XXI of the GRI suffering 'from a deformity of the hand and arm which took place about a year ago'.<sup>151</sup> Soon after his admission a photograph was taken to 'shew the position of the hand'.<sup>152</sup>[102:207] Later, the arm was examined whilst the patient was under chloroform. Stiffness in the wrist joint was noticed along with an 'osseous irregularity ... over which the nerves seemed to pass'.<sup>153</sup> On 8<sup>th</sup> October, the 'patient was put under chloroform and an incision was made along the anterior aspect of the arm ... [a] spine of bone was exposed along with the median nerve ... the photographs shew the relation of the nerve to the nodule.'<sup>154</sup>[103-104:208]

These two photographs contradict what was formerly known regarding Macewen's antiseptic-aseptic practice. Moreover, they reinforce the value of photographs in historical research. In regard to what is probably one of the most potent symbols of aseptic surgery, the white coat is nowhere in evidence. The image on the left shows the patient's head and right arm, surrounded by a sheet which appears in the image appears to be wet, and slightly reflective to the camera

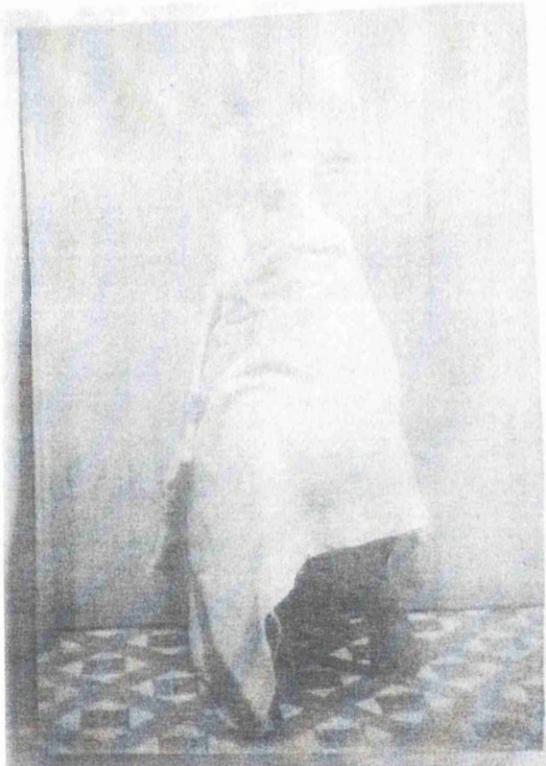
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<sup>151</sup>Ibid. See also Jones, P.F. (1995) 'Pioneers of the Transition from Antiseptic to Aseptic Surgery', *Journal of Medical Biography*, 3: 201-206. RCPSG10/9/3, 7, W.B. was admitted on 3<sup>rd</sup> October, 1881. The author of the Private Journal entry differs from that included in the GRI ward journal, HB/14/5/8, 2, 78-79. Although this account shares many similarities with that in the PJ, the account in the ward journal is shorter in length, less detailed, and no reference was made to the photographs that were taken during surgery.

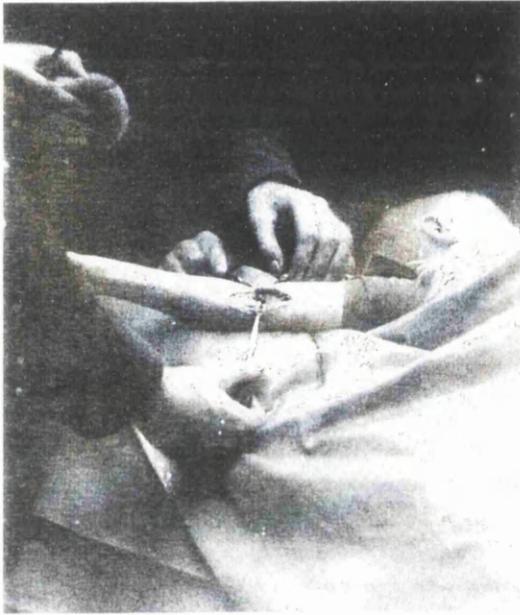
<sup>152</sup>RCPSG10/9/3, 7.

<sup>153</sup>Ibid.

<sup>154</sup>Ibid. Following the first operation, it was decided early in November 1881 that due to the lack of improvement in the movement of the patient's hand and fingers, the wound should be reopened. Some of connective material surrounding the nerve was removed, and the two ends of the nerve were then brought together with chromic gut.



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lens. The apparent wetness may be due to the use of carbolic spray, which was used all over the surgical dressings. The patient's arm — the seat of activity — is the focal point of the image. An incision is visible on the anterior aspect of the patient's arm. In the foreground, the surgeon's hands and dark coloured cuffs of his coats are visible; in his right hand is a retractor which leads the eye to the exposed median nerve and the nodule; and in the left hand he is holding a sponge and another instrument.<sup>155</sup> A second surgeon's hands, also bordered by dark coloured cuffs, are directly behind the patient's elbow. Again, the surgeon is holding an instrument directly above the point of incision. In the second image, the surgeon is still holding the retractor in his right hand, whilst his left hand is now twisting the patient's incised arm towards the camera lens. A second pair of hands in the background is now redundant, resting at the top of the frame, while another operator's hands appear in the top corner of the scene holding an instrument.<sup>156</sup>

On 23<sup>rd</sup> June, 1883, J.C. was admitted to the GRI suffering from a disease of the right elbow, of several years' duration. 'Ancylosis of a fibrous kind had taken place in the joint, which he has consequently kept fixed at the angle seen in the photograph.'<sup>157</sup> During the operation a couple of photographs were taken, with retractors being used to hold the wound open, prior to performing an Ollier's excision. Afterwards, 'the wound was stuffed with gauze, with a piece of

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<sup>155</sup>This may be an osteotome — its use in the operation was referred to in the case notes, 9. In the background is another assistant, also wearing a dark coloured coat. He is holding some kind of instrument directly above the incision made.

<sup>156</sup>RCPSG10/9/3, 7.

<sup>157</sup>Ibid. 45-46.

protective plaster being placed between the gauze and the wound. Forty-eight hours afterwards the stuffing was taken out and stitches were put in.<sup>158</sup> The portrait taken before surgery was placed above those taken during the operation. In the latter, the wound was subsequently outlined with orange-brown watercolour paint.

The next case follows a similar pattern, with the patient being photographed before, and again, during surgery. On 22<sup>nd</sup> June 1883, F.I. was admitted to the GRI suffering from a tumour over the left shoulder blade.<sup>159</sup> The patient was photographed before surgery, providing a 'View of the shoulder before operation'. Macewen found that it was necessary to remove the tumour and the whole scapula. After this, at least two photographs were taken. Beneath them Macewen wrote, 'View of seat of operation — taken after removal of a tumour'. In addition, he marked each print with an 'X' to denote the position of the 'head of the humerus, seen above as a white ring'. This would help the viewer to decipher details which were difficult to see in the prints. Unlike the other photographs taken during surgery, there is no evidence of the operators' hands or instruments.<sup>160</sup>

Volumes IV and V of the PJS cover a period from 1883 to 1885. They contain a handful of cases accompanied by photographs, some of them taken during the patient's post-operative treatment. For example, they show patients limbs set in splints, having received treatment for knock-knee or having

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<sup>158</sup>Ibid.

<sup>159</sup>RCPSG10/9/4, 42-44.

<sup>160</sup>The ward journal entry records that on 2<sup>nd</sup> July 1883 the patient 'died never having recovered from the shock', HB14/5/8, 201, 262-3.

undergone excision of the knee joint. For instance, in Volume IV of the PJ, J.M. was admitted to the GRI suffering from disease of the astragalus and the articular ends of the tibia and fibula, in April 1883.<sup>161</sup> On the 26<sup>th</sup> April the ankle joint was excised 'the os calcis was pinned to the tibia by two steel nails ... forty-eight hours afterwards the wound was stitched. The limb was put up in a wire splint and the foot was fixed with paraffin bandages leaving a complete gap at the ankle.'<sup>162</sup> The photograph, although now very faded, is a close-up shot of the patient's limb in the splint.

A second example, of double knock-knee, is accompanied by photographs taken before surgery and during treatment. Minimal case notes record that there were '19½ inches between the mallioli & 11½ inches vertical measurement for the knee to a point midway between the two mallioli'.<sup>163</sup> Beneath the notes are two photographs; one of the patient standing; the other showing her sitting on Macewen's bare operating table. This second image is more successful in conveying the horizontal displacement of the limbs. On the opposite page are five photographs, taken from different angles, which show the patient lying on a bed with her limbs in splints. This group of photographs appear almost 'staged' for the camera: the drapes on the bed are very neat, and the backdrop, of dark coloured drapes, cuts out any distracting background details.

A final example, from 1885, combines photographs taken during post-operative treatment alongside those following recovery. The patient, M.M. was

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<sup>161</sup>RCPSG10/9/4, 21, 87.

<sup>162</sup>Ibid. 21.

<sup>163</sup>Ibid. 84.

admitted to the GRI on 31<sup>st</sup> December 1884 suffering from a diseased knee joint. Macewen employed the 'supra patella method' operation, and afterwards the patient's limb was put up a box splint. A series of photographs were taken. Following her successful recovery, photographs were taken which show front and back views of the patient standing.

One of the most detailed examples of combining portraits with body parts is provided by the case of J.S., admitted to the GRI on 21<sup>st</sup> January 1885 suffering from a dislocation of the knee. He was photographed, standing in profile, his healthy limb obscured by using a dark coloured drape which acts as the studio backdrop. [105:213] On 6<sup>th</sup> February, the diseased limb was amputated. The limb was then strung up by the ankle, hanging over a shiny, reflective tabletop, then photographed, the print being mounted in the PJ upside down.[106:213] Another shot was taken of the limb after a section was cut through the knee joint. [107:213] Finally, the knee joint was removed from the remainder of the limb, and again strung up and photographed. [108:213] The accompanying case notes seem to justify the choice of surgical procedure: 'a section was made thorough the centre of the removed bone, a photograph taken which is represented on the other side. It will be seen from this that the epiphysis of the tibia lay in line with the epiphysis of the femur and that the popliteal vessels already on the stretch would probably have been obliterated had any attempt at straightening been made.'<sup>164</sup>

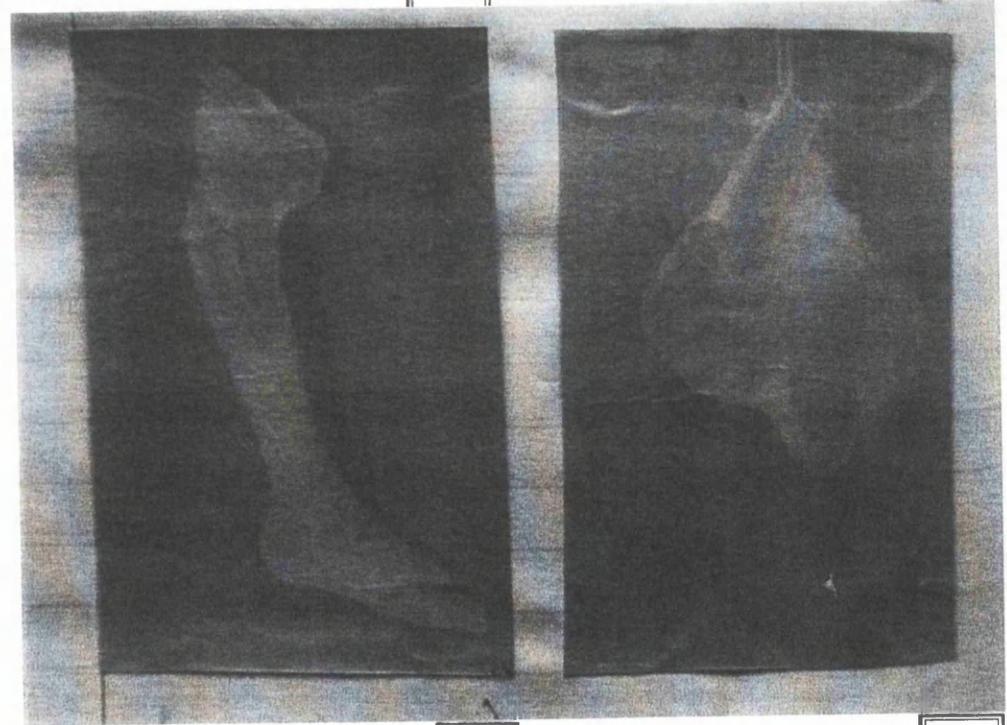
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<sup>164</sup>RCPSG10/9/5, 1884-1885, 93-95.



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It was not until 1889, however, that the first photographs of specimens are used to illustrate cases in the PJ. One of the first relates to W.B. admitted to the GRI affected with tubercular disease of the knee joint. On 6<sup>th</sup> April an ‘amputation of the thigh was performed, and the wound healed under one dressing. A photograph of the knee in section is here presented.’<sup>165</sup> Thus one is provided with a visual narrative of the case, whereby every effort has been made to maintain the links between the patient and specimen. If some cases were deemed particularly interesting, or indeed visually stunningly, efforts were made to section and dissect the specimen. In this instance, ‘acute ulceration of cartilage great tubercular infiltration of the synovial membrane with abscess formation in one part’ were observed.<sup>166</sup>

As already noted, Macewen photographed only a selection of cases for inclusion in his PJS. He did not photograph emergency cases, such as amputations, because it would hinder the speed of the speed and success of the operation. Likewise, he was unwilling to photograph operations to the brain or skull. Whether this was because he felt it posed a threat to the patient and to his aseptic principles is unclear. He did, however, routinely photograph the brain and skull during post-mortem examinations. Therefore Macewen’s photographic sessions were seemingly pre-planned, and became routine in cases of rickets, knock knee, etc., both before and after treatment. Moreover, photography was also used to create a visual record of pathology, even though some cases were deemed inoperable.

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<sup>165</sup>RCPSG10/9/7, 1887-1889, 82.

<sup>166</sup>Ibid.

*William Macewen's Journal at the Royal Hospital for Sick Children*

In February 1883, Macewen began to include a selection of cases he encountered at the RHSC in his own journal (MRHJ).<sup>167</sup> MRHJ contain comprehensive case notes, by Macewen and others, as well as detailed temperature charts (identical to those in the RHSC ward journals) and photographs.<sup>168</sup> It is only in the RHSC ward journals and MRHJ that temperature charts and clinical photographs appear juxtaposed.<sup>169</sup>

Five cases entered in MRHJ are accompanied by one or more photographs which date from August through until December, 1883.<sup>170</sup> J.M.'s case was one of the first to be entered in MRHJ. He was admitted to the RHSC early in March 1883, suffering from double Talipes Varus. His case is accompanied by a third print, which is exclusive to MRHJ, and shows J.M., wearing a Tam O' Shanter. The case notes record that by 8<sup>th</sup> August, J.M. could 'now walk about very well; the photographs will indicate the condition of the feet'.<sup>171</sup> [109:217]

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<sup>167</sup>Macewen's Royal Hospital Journal.

<sup>168</sup>I have been unable to identify the author of many of the case notes in this journal. The author of the case notes also evidently completed the details on the temperature chart.

<sup>169</sup>It is possible that the juxtaposition of the photograph and temperature chart is a visual record of each phase of a patient's progress culminating in the final photographing of a successful outcome.

<sup>170</sup>Four of the five photographs were taken of the patients following treatment. This leather bound journal bears the words 'Sick Children's Hospital. William Macewen', embossed in gold leaf, RCSPG10/9/14. Cases were entered in MRHJ from April 1883 until February, 1886. J.M.'s case was previously discussed in Chapter Four of this thesis.

<sup>171</sup>Ibid.

The second photograph in MRHJ accompanies the case of T.F., on whom a sub-periosteal excision of the elbow joint was performed on 26<sup>th</sup> April, 1883.<sup>172</sup>

All of the articulating surfaces were removed, as the humerus and ulna were founded diseased, and the cartilage eroded:

The joint was then stuffed with gauze sprinkled over with iodoform. [28<sup>th</sup> April] The gauze was taken out of the wound. There was then no fresh bleeding except from the needle wounds. The parts were brought together with deep and superficial sutures & a chicken bone drainage tube threaded with hair was introduced. The limb was put on a straight splint. [August 8<sup>th</sup>] Before dismissal his arm had considerably [word indecipherable]; was able to touch the shoulder of arm operation on; to extend, to rotate & to supinate.<sup>173</sup>

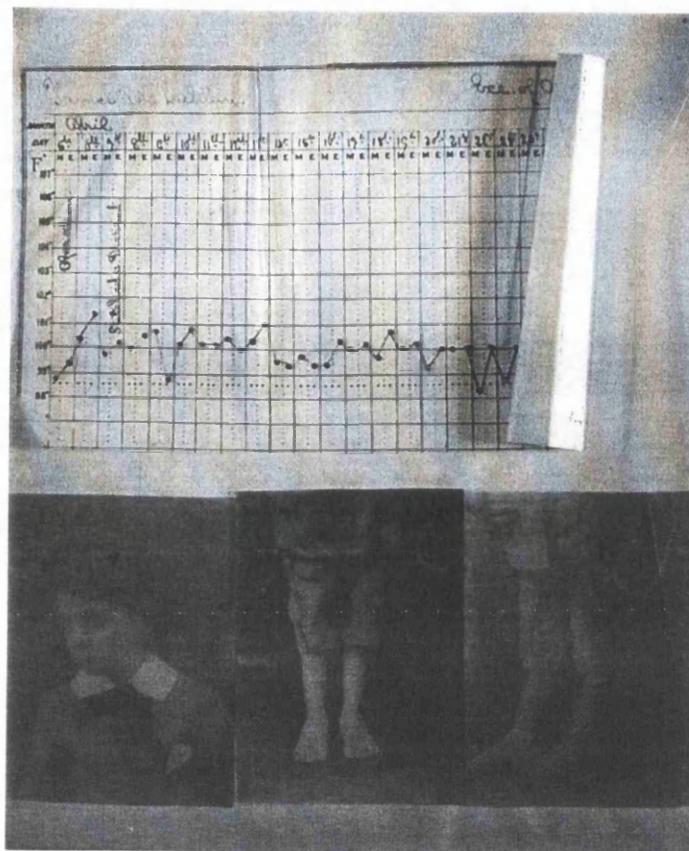
### *Conclusion*

The ward journals of the GRI do not contain photographs. However, as we have seen, William Macewen began photographing a selection of his patients that entered his surgical wards at the GRI from 1881 onwards, for inclusion in his own PJS, rather than in the GRI ward journals. Moreover, Macewen's photographs were, no doubt, taken using his own equipment and materials, and inserted into the PJS, thus they were his own property, rather than those of the GRI. He donated only a handful of his photographs to the RHSC's ward journals, which are duplicated in his MRHJ.

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<sup>172</sup>RCSPG10/9/14, 6.

<sup>173</sup>Ibid.



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From July, 1882, Macewen was wholly committed to the idea of ‘duplicating’ photographs in both his PJS and his collection of clinical photographs, which was used for teaching purposes. Macewen’s collection of clinical photographs will be discussed in detail in the following chapter.



VISUAL PATHOLOGY: A CASE STUDY IN LATE  
NINETEENTH CENTURY CLINICAL PHOTOGRAPHY  
IN GLASGOW, SCOTLAND

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**VOLUME II**

A THESIS SUBMITTED FOR THE DEGREE OF  
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**Chapter Six**  
**Section I, Dr William Macewen's Collection**  
**of Clinical Photographs**

This section of Chapter Six sketches an outline of the discourse in medical and photographic journals surrounding the collecting of clinical photographs from the mid nineteenth century onwards. These collections were created by medical men and utilised for teaching and research purposes.

Part two of the chapter describes a collection of clinical photographs from the Glasgow Royal Infirmary (GRI), held within the Greater Glasgow Health Board Archive (GGHBA). Subsequent analysis led me to conclude that the photographs were the work of Sir William Macewen. As documented in the previous chapter, Macewen began taking and collecting clinical photographs during the early 1880s when surgeon to the GRI and lecturer to its associated medical school. These he used, in conjunction with plaster casts and specimens in surgical demonstration classes.

From 1892, Macewen was installed as Regius Professor of Surgery at the University of Glasgow and Visiting Surgeon to the Glasgow Western Infirmary (WI). He expanded all the collections he had began earlier at the GRI. Aspects of his photographic practice at the WI will be reconstructed using Martin Kemp's theory of accessory images and border information.<sup>1</sup>

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<sup>1</sup>Kemp, M. (1997) 'A Perfect and Faithful Record: Mind and Body in Medical Photography Before 1900', in A. Thomas & M. Braun (eds.) (1997) *Beauty of Another Order: Photography in Science* (London: Yale University Press), 120-235.

Macewen's collection of photographs was organised by a series of numerical and lettering systems, which related to a scheme of classification. The scheme lists four "Demonstrations": 'Tumours', 'Hernia', 'Deformities' and 'Fractures and Dislocations'. By using the classification in conjunction with the numbering and lettering systems I shall reconstruct parts of the 'Tumour', 'Hernia' and 'Deformities' demonstrations. The photographs of 'Fractures and Dislocations' are no longer in the collection.<sup>2</sup>

Macewen's collection of photographs, casts and specimens developed over a period of thirty years or so. During that time, a number of Glasgow surgeons contributed photographs to the collection, including Dr Alexander Patterson, and perhaps most notably, Macewen's son, Dr John A.C. [Jack] Macewen. Their contributions to the collection will be discussed in the third part of the chapter. The fourth section of Chapter Six places photography within the context of Macewen's teaching practice, and relate it to other forms of visual media.

## ***Overview***

In England during the 1860s, Henry G. Wright, M.D. encouraged medical practitioners

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<sup>2</sup>For the 'Fractures and Dislocations' Scheme see Appendix Three, page 385. Some of the photographs from this Demonstration may have been reproduced in Jack Macewen's publications, see, Macewen, J.A.C. (1919) *Fractures, Compound Fractures, Dislocations and their Treatment: With a Section on Amputations and Artificial Limbs* (Glasgow: Maclehose, Jackson); Macewen, J.A.C. (1922) *A Text Book of Surgery for Students and Practitioners* (Glasgow: Maclehose, Jackson & Co.).

to take photographs of their patients and donate them to a collection being curated by the Royal Medical and Chirurgical Society of London. In a letter to the Editor of the *Photographic Journal*, dated 12<sup>th</sup> January 1863, Wright stated that he wished to:

[P]roffer a request to photographers, both professional and amateur ... [T]he records preserved by medical practitioners, of their cases, and of the success of treatment or of operations, are of immense value to the community; for the experience thus stored up supplies the materials from which intelligence sifts out the knowledge that saves life. But for such exactly kept records, medicine and surgery would no more have advanced than would any other science, photography included ...<sup>3</sup>

Five years later, Wright made another appeal 'to all photographers who may be called upon to photograph phases of disease or abnormal physical conditions, to send duplicates of such work to the Librarian of the Royal Medico-Chirurgical Society, at 53 Berners Street', London.<sup>4</sup> He explained that the collection could 'afford invaluable assistance in the study of disease, photographers will be paying a debt as well as assisting in good work; for many who have ably contributed to the advancement of photography, as well as the progress of science generally, have been medical men'.<sup>5</sup> Wright was keen for the donated photographs to be accompanied by brief patient case notes, as:

It will be wise to obtain particulars from the medical intendant in charge of the case. Where this is neglected the photographer should at least send the age and sex of the patient; duration of the tumour or other abnormal condition, in case of disease; statement, in case of malformations, of whether accidental or congenital; and such other leading facts as may be easily ascertained.<sup>6</sup>

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<sup>3</sup>Wright, H. (1863) 'Applications of Photography to Medicine and Science', *The Photographic Journal*, 8: 206-207.

<sup>4</sup>Wright, H. (1867) 'Applications of Photography to Medical Science and Surgical Science', *The Photographic Journal*, 11: 86-87.

<sup>5</sup>*Ibid.* 86.

Wright's pleas may not have been too successful. Evidently, the collection did not grow to any extent: as according to Alison Gernsheim there were 'only two albums which contained a total of 123 photographs' which were subsequently moved to the Royal Society of Medicine.<sup>7</sup> A few of these photographs have found their way into specialised histories of photography.<sup>8</sup> It is unclear how many medical societies had their own collections.

Wright was also keen to promote the clinical photograph in teaching and research. In 1867 his 'Address on the Medical Uses of Photography' appeared in *The Photographic Journal*.<sup>9</sup> He recorded that:

Photography was at once recognised by medical men as useful to their profession in its earliest days. The character of disease, the varying conditions which mark its progress, could thus be permanently recorded, and those which precede and follow treatment accurately noted, all peculiarities of original development and expression, or of structure being thus faithfully represented. I believe that Dr. Sibson was among the first to avail himself of its aid; delineating the effects of certain phenomena of respiration, by Daguerreotype plates ... [T]he value of such a use of the camera for professional purposes must depend — 1. On the accumulation of a number of illustrations of each form of disease. 2. On the precision and accuracy with which the pictures are taken. In reference to the first point, I may observe that this collection of the Medico-Chirurgical Society is, I believe, the only one in the world where photographs having professional interest are mounted, arranged, and described for reference. No day passes but some photographic operator somewhere is called on to supply records of cases of disease or injury.<sup>10</sup>

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<sup>6</sup>Ibid. 85.

<sup>7</sup>Gernsheim, A. (1969) 'Medical Photography in the Nineteenth Century, Part 2', *Medical and Biological Illustration*, 2: 147-156. I contacted the Royal Society of Medicine but they have no record of these albums. Currently they only hold Dr Hugh Welch Diamond's clinical psychiatric photographs.

<sup>8</sup>See Taurek (1981), 121.

<sup>9</sup>Wright, H. (1867) 'Applications of Photography to Medical Science', *The Photographic Journal* 11: 201-205.

<sup>10</sup>Wright, H.G. (1867) 'Address on the Medical uses of Photography', *The Photographic News*, 11: 85-87.

For Wright therefore, the medium was not only precise and accurate, but collections of photographs could play an important role in teaching and research. This theme was reinforced in an article entitled 'Medico-Photography' which appeared in *The Photographic Journal* in 1870:

[T]he art of photography has, to a very great degree, aided the physician and surgeon, supplying them with reliable records of cases which could not fail to contribute towards the furtherance of medical science, and to enlarge the experience of students.<sup>11</sup>

Around the mid-1860s, St Bartholomew's Hospital, London, began to photograph patients on a regular basis.<sup>12</sup> These photographs were incorporated into a much larger collection of paintings and drawings. Many of the images can be linked via a numerical system to ward journals and pathological specimens. The latter were displayed in the hospital museum. The photographs date from circa 1866 to 1900. Each print is mounted on a board, with references to case notes written on the verso of the board. They display a variety of conditions, such as ovariectomy, elephantiasis and Paget's Disease of the nipple. Some of the paintings, drawings and photographs can be attributed to Thomas Godart, who was St Bartholomew's librarian and artist from 1852. By 1881, he was appointed as an artist and photographer.<sup>13</sup> Perhaps Godart is one of the first professional hospital artists and photographers. By the mid-1880s photography was a routine practice at St Bartholomew's Hospital. Physicians and surgeons would complete one of Godart's photographic order forms, which included their name, the name and age of the patient, ward number, the diagnosis or a

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<sup>11</sup>Editorial (1869) 'Medico-Photography', 133-134.

<sup>12</sup>St. Bartholomew's collection of clinical photographs is now held in the St Bartholomew's Hospital Archive.

description of the lesion. The form goes on to record that ‘the curator will not accept any photograph which is not accompanied by this paper accurately filled up and signed by the physician or surgeon who requested photograph taken.’<sup>14</sup> Once the request form was completed, the photograph would be taken and the print made. The print was then mounted onto a board, on the verso of which the completed request form was pasted.<sup>15</sup>

Two Utrecht surgeons, Albert Narath and Hiddo Jan Lameris also began a collection of clinical photographs. The earliest photographs date to circa 1890.

Although little is known about how Billroth may have used these particular photographs in his practice, he evidently encouraged his students to use visual media in their work. Two of Billroth’s pupils Albert Narath (1864-1924) and Hiddo Jan Lameris (1872-1948) became successive Professors of Surgery at Utrecht’s Municipal and University Hospital. Characteristically, both Narath and Lameris also recognised the intrinsic usefulness of photography and consequently employed the medium in their pioneering work in medicine.<sup>16</sup>

In a book entitled *Utrecht Goitre* the authors Troost and van Zoetendaal note that the use of photography by Narath and Lameris ‘undoubtedly owes its origins to Theodor Billroth, the famous surgeon who had trained them ... [who] was one of the first doctors to use photography for patient files and to illustrate his publications’.<sup>17</sup> Although the

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<sup>13</sup>Wallace, A.F. (1994) ‘Look under my Sink’, *Bart’s Journal*, 18: 6. There is also reference to Dr F. Glendenning of St. Bartholomew’s Hospital using photography between 1892 and 1894.

<sup>14</sup>This label appeared on the verso of the mount boards in the St. Bartholomew’s collection of clinical photographs.

<sup>15</sup>Further evidence of the integrating of photography into medical practice is evident from surgical ward journals held at the Great Ormond Street Hospital. From the 1870s the patients of Dr W.H. Dickinson were regularly photographed. Great Ormond Street Hospital Archive also holds a large series of glass plate negatives from 1917 onwards, many of these are ward-cot scenes. (Nicholas Baldwin, Pers. Comm. 2000).

<sup>16</sup>Troost, F. & van Zoetendaal, W. (1999) *Utrecht Goitre* (Amsterdam: Basalt Publisher), 7.

<sup>17</sup>*Ibid.* 107. According to Willem J. Mulder, medical collection curator at Utrecht University Museum, some of Billroth’s images may now be part of the Narath-Lameris Collection. (Pers. Comm. 2000). Many of Billroth’s later photographs may have been taken by ‘G. Jochmann’ rather than J. Ganz, who had taken stereographs for Billroth during the late 1860s. See Troost & van Zoetendaal (1992) *Utrecht Goitre*, 108.

earliest photograph in the Narath-Lameris collection dates from 1891, approximately ten years after William Macewen began his collection, the format of the two collections is remarkably similar. Both contain circa one thousand photographs, mounted on boards, with brief patient case notes on the verso. These details can be cross-referenced to corresponding contemporary ward journals and pathological reports. The size and format of the collection implies that they were also evidently used for teaching purposes, and may have later been referred to as Card Specimens, as we have seen in the *GMJ* in Chapter Two.

There are two notable differences, however. Firstly, each collection focuses on different diseases. For example, the Narath-Lameris Collection contains many photographs of patients suffering from goitre, whereas there are only one or two examples of this condition in Macewen's collection. Secondly, it is unclear whether Narath and Lameris took their own photographs. By 1908, Utrecht's Municipal and University Hospital had darkrooms, so the photographs may have been the work of an in-house photographer.

During the early twentieth century, Dr William Herbert Brown (1878-1959), a dermatologist at Glasgow's Victoria Infirmary, began photographing his patients. His collection contains approximately one thousand items, including glass negatives, photographs and stereoscopic prints, which date from circa 1920 to 1940.<sup>18</sup> The collection reveals Brown's willingness to experiment with stereoscopy and hand tinting. Like Macewen's collection and that of Narath and Lameris, the photographs

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<sup>18</sup>RCPSG78.

were mounted onto boards with brief patient case notes on the verso.<sup>19</sup> This implies that there was a standardised format which each of the collections followed.

### ***The GRI Collection of Clinical Photographs***

In July 1996, a collection of clinical photographs were deposited in the GGHBA by Bill Patterson, Director of Medical Illustration Services at the GRI.<sup>20</sup> The collection had been held in the Department of Medical Illustration from the 1980s.<sup>21</sup>

At the time of deposition little was known about the origins and the creators of the collection. According to Bill Patterson, the photographs were known as the 'Pringle Collection', named after the GRI surgeon, James Hogarth Pringle (1863-1941). According to Patterson, however, there was 'little evidence which would point towards Pringle having much to do with their production'.<sup>22</sup> Pringle, however, donated a number of photographs, signed paintings and drawings to the collection, which will be discussed in the third section of Chapter Six.<sup>23</sup>

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<sup>19</sup>A description of Brown's work appears at [http://jetsum.uwcm.ac.uk:11380/imi\\_archives/archives](http://jetsum.uwcm.ac.uk:11380/imi_archives/archives) (1.3.02). The collection was moved to the Royal College of Physicians and Surgeons, Glasgow in 2002, see RSCPG 78. See also Brown, W.H. (1929) 'Aetiology of Alopecia Areata and its Relation to Vitiligo and possible Scleroderma', *British Journal of Dermatology*, **41**: 293-323. Some of Brown's photographs were also published in medical textbooks by the Edinburgh based publishers Walker and Percival, Cranston Low & Peterkin. An Account of the Herbert Brown Archive was published by Jury, C.S., Lucke, T.W., Munro, C.S. (2001) 'The Clinical Photography of Herbert Brown: A Perspective on Early 20<sup>th</sup> Century Dermatology', *Clinical Experimental Dermatology*, **26**: 449-454. There is a collection of early twentieth-century photographs of dermatology patients at the University of Manchester Skin Hospital, and another, not as yet catalogued, held at the Utrecht University Museum, Netherlands.

<sup>20</sup>The collection also included a small number of paintings and drawings.

<sup>21</sup>Mr Bill Patterson (Pers. Comm. 2002). The collection had to find a new home because of lack of space.

<sup>22</sup>Ibid.

<sup>23</sup>In 1986 a copy of one of the photographs was used in an article, see Donald, G. (1986) 'The History of Medical Illustration', *Journal of Audiovisual Media in Medicine*, **9**: 44-49. On page 47 'Figure 4' is described as an 'early medical photograph of a patient with a sarcoma of the lower femur 1889. This photograph is from the Pringle Collection.' This particular image was one donated to the Macewen

The collection comprised over eight hundred photographs mounted on boards. There are brief case notes on the verso, which included a system of letters and numbers. There were also a handful of paintings, drawings, images taken from contemporary German medical periodicals. The items stood vertically in a custom-made wooden box and were separated by pale blue cardboard subject dividers.<sup>24</sup>

The GGHB Archivist, Alistair Tough, arranged the collection into seventy-four subject files, including 'Cancer', 'Tuberculosis', 'Hernia' and 'Other Subjects'.<sup>25</sup> Tough's arrangement was based on the order in which the items were arranged when they were received, on a system of numeration, subject matter, and by using the original scheme of classification.<sup>26</sup>

The original scheme of classification lists four "Demonstrations": 'Tumours'; 'Deformity'; 'Hernia' and 'Fractures and Dislocations.' This scheme corresponds with the numerical and lettering system written on the verso of the board, either in the top right or left hand corner. The letter 'T' probably relates to the 'Tumour Demonstration', 'D' to 'Deformity' and 'H' to 'Hernia'. Items accompanied by the letter 'T' date items in the 'Tumour Demonstration'; from 1896 to 1911; 'D' for 'Deformity' from 1894 to 1910 and finally 'H' for 'Hernia' from 1893 to 1911.

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Collection by Dr Alexander Patterson. See [262:336].

<sup>24</sup>The box was evidently designed specifically to hold the collection. It was approximately one metre long, with metal handles at either end. The photographs were removed from their original box, placed into subject files and stored in archive boxes. One of the original dividers survives, see 'Hernia Comparisons', the divider is marked 'Table 18', HB14/19/36. However, not all of the items in the collection are accompanied by a letter.

It appears that the numerical system was in use from the outset, i.e. circa 1881-1882.

<sup>25</sup>There are a total of 789 items in the whole collection: 293 photographs of cancer, HB14/19/2-22; 56 of Tuberculosis HB14/19/23-6; 100 photographs of hernia HB14/19/27-36; 270 under the heading of 'Other Subjects', HB14/19/37-70; 30 items are arranged under the heading Miscellaneous, no common factor HB14/19/71; 9 items are listed under 'Miscellaneous, copied from German Journals' HB14/19/72, the original source remains unclear; 13 items listed under 'Unidentified', HB14/19/73; 18 items listed under 'Unidentified', HB14/19/74.

<sup>26</sup>'GRI Clinical Photographs', HB14/19/1-74.

The original scheme of classification, numeration, letters and table numbers are the key to understanding the evolution and organisation of the collection. Using these criteria I shall reconstruct parts of three demonstrations later in part two of this chapter.

The collection is currently organised into seventy-four subject files in the GGHBA. I could not disturb this arrangement. Therefore, in order to see something of the 'original' organisation of the images, I decided to re-photograph items from each demonstration. This allowed me to reorganise my copies, using the original numerical system.

### ***Linking William Macewen to Photography and the GRI Collection***

There are visual and textual clues that link Macewen's name to the GRI collection of clinical photographs (CC). Two items in the CC record that they were 'Dr J.A.C. Macewen's patient' in the case notes written on the verso of the boards.<sup>27</sup>

Dr John A.C. [Jack] Macewen (1874-1944) was the eldest son of Sir William Macewen. His writings provide many clues to his father's photographic practices. In the preface of Jack Macewen's book entitled *Fractures, Compound Fractures, Dislocations*, published in 1919, he records that 'the plates are almost entirely made from photographs in a collection begun by Sir William Macewen in the earliest days of dry-plate photography and continued by the writer'.<sup>28</sup>

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<sup>27</sup>See, for example, *Spina Bifida Occulta*, HB14/19/67.

<sup>28</sup>Macewen, J.A.C. (1919) *Fractures, Compound Fractures, Dislocations*, page v.

Similarly in 1922, Jack Macewen published his *Text Book of Surgery for Students and Practitioners*, which contained over five hundred illustrations.<sup>29</sup> He records in the preface that ‘except where otherwise acknowledged all the diagrams and illustrations are from the Macewen collection, which includes among others that gifted by the late Dr. Patterson, Surgeon to the Western Infirmary, Glasgow.’<sup>30</sup> Jack Macewen is referring to Dr Alexander Patterson. Patterson’s photographs are readily identifiable, as they are cabinet cards taken by some of Glasgow professional studio photographers, coupled with his signature on the verso. Patterson’s photographs will be discussed in detail in the third part of Chapter Six.

The illustrations Jack Macewen refers to are clinical photographs. When one compares facial features and diagnostic details in these published photographs with the some of the original prints in the CC, it is evident that the latter was the source for these publications.

Jack Macewen reminisced about his father’s photographic activities, recalling that:

He also took many photos with a camera he used in the Infirmary, using some of the earliest dry plates on the market, and these we developed at night, with the light from a portable red lamp. He had an enormous collection of photographs of cases, many of them almost unique, and a number of these [sic] I published in my *Text Book of Surgery*.<sup>31</sup>

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<sup>29</sup>Macewen, J.A.C. (1922) *Text Book of Surgery for Students and Practitioners* (Glasgow: Macle hose, Jackson & Co.). The book contains 535 images: 61 diagrams; 29 photomicrographs; 16 X-Rays (the work of either: Drs. Chapman, Macgregor, Riddell or Ritchie). Of the remaining 429 photographs of patients, specimens and body parts, 116 are now found within the GRI collection of clinical photographs.

<sup>30</sup>Macewen, J.A.C. (1922) *Text Book of Surgery*, v-vi.

<sup>31</sup>This was probably a plate-camera, which William Macewen used in the GRI. Advertisements of portable red lamps can be found in contemporary photographic journals. The book referred to in the quote is Macewen, J.A.C. (1922) *Text Book of Surgery*.

This is one of the few explicit references I have found to William Macewen taking photographs of cases. Jack Macewen's reference to some of 'the earliest dry plates on the market' is erroneous. These were available from the early 1870s, around the period when Jack Macewen was born. Therefore, he must have, in fact, been referring to the gelatine dry-plates of the early 1880s.<sup>32</sup>

William Macewen's obituaries, published in early 1924, also refer to his photographic work. For example John Patrick stated in the *GMJ* that:

[I]n a measure, his house surgeons used to regret that he should occupy his time so much personally with writing notes, taking photographs, making plaster casts, much of it purely mechanical work which might easily have been delegated.<sup>33</sup>

Patrick reiterated these sentiments in Macewen's obituary published in the *BMJ*.<sup>34</sup> He recorded that:

In the Scottish hospitals the surgeon in charge of wards invariably visits and works in the wards for three or four hours each day. Macewen spent many more hours in writing, in photography, in specimen making, in observing cases, and in emergency work.<sup>35</sup>

Therefore there is evidence to suggest that William Macewen took and collected clinical photographs. Many of the photographs in the CC can be cross referenced to Macewen's PJS, as well as his and his son's publications. Therefore the

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<sup>32</sup>However, the earliest surviving photographs Macewen took at the GRI date from 1881. Jack and his father often visited Dr. Thomas Reid, the oculist, in order to look over sections through the microscope. Jack Macewen had poor eyesight, which may have made focusing the camera problematic. Jack Macewen recalled 'One thing which has since surprised me is that neither my father nor Reid ever appreciated the fact that I was short sighted. When on roving expeditions my father would draw my attention to birds, nests, rabbits, etc., and I could not see them, I was well aware that he was annoyed at my stupidity', DC79/43, pages unnumbered.

<sup>33</sup>J.[ohn] P.[atrack] 'Obituary, Sir William Macewen,', (1924) *Glasgow Medical Journal*, **101**: 226.

<sup>34</sup>J.[ohn] P.[atrack] 'Obituary, Sir William Macewen,', (1924) *British Medical Journal*, **I**: 603-609.

<sup>35</sup>Ibid. 605.

overwhelming evidence suggests that the GRI CC is, in fact, William Macewen's collection of clinical photographs.

### ***Linking Macewen's Private Journals to the GRI Clinical Photographs***

The CC contains two print sizes. According to information on the verso of the boards, the smaller prints date from circa 1882 to 1895. The early date of the small prints is also suggested by their tonal qualities. In both the PJ and the CC they are either 'greeny-brown' or 'orangey-brown' colour, which suggests that they were produced at the same time using similar printing conditions and materials.

The larger prints date from circa 1896 onwards, and relate to William Macewen's work in the Glasgow WI. This print format is described as a 'half plate'. These were glass plate negatives which measure 6.5" x 4.75".<sup>36</sup> Once the negative had been exposed, developed, washed, fixed and dried, it was then laid directly on top of the emulsion side of a piece of photographic paper. This is known as a contact print, which makes full use of the negative, and no enlarger is required. The paper was exposed to light and then developed, washed and fixed. These prints were made on either matt or gloss papers and have much greyer tones than those of the smaller prints.

The early date of the small prints in the CC is also supported by the numerical system. For example, the small prints of carcinoma (part of the 'Tumour

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<sup>36</sup>A whole plate measured 8.5" x 6.5". A selection of photographs from the collection were kindly examined by Professor Larry Schaaf. He said that the prints resembled 'Kallitypes'. Kallitypes are created through an iron-silver process, also known as the 'poor mans platinum'. See <http://www.silverprint.co.uk/altproc4.html> (1.7.02). In its basic form 'a light sensitive coating of ferric ammonium citrate and silver nitrate produces a sepia image of great richness ... exposures were made in sunlight or ultra-violet lamp in contact under a negative until the image prints out.' The print is then washed in running water. The image produced is rich in metallic silver.

Demonstration’) are numbered from ‘1’ to ‘16’ and are accompanied by minimal case notes written on the verso of the board on which the image is mounted, but many are devoid of the patient’s personal details.<sup>37</sup>

From April 1881 Macewen was a Lecturer in Clinical Surgery at the GRI Medical School, and this may have been one of the main incentives for him to begin taking clinical photographs from this time onwards. The PJS were not an ideal format for teaching groups of students. However, duplicating prints from cases included in the PJS or using spare prints, and pasting them onto sturdy boards, made them an ideal format for teaching and display. As yet there is no evidence available to show how Macewen used these photographs for teaching purposes at the GRI, but they may have been laid out on tables, as they were years later, in his surgical demonstration classes at the University of Glasgow.

If one examines the background details in some of these small prints one can clearly see that many patients were photographed in Macewen’s operating theatre at the GRI, which was equipped with wooden benches. These details are also evident in the background of prints included in Macewen’s PJS, as noted earlier. Therefore, both the visual and textual evidence suggests that small prints in the CC date from the early 1880s onwards, rather than being reprinted at a later date and then added to the collection.

The earliest photograph which can be cross referenced to both the PJS and the CC dates from July 1882. This may be the date when Macewen began his collection of

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<sup>37</sup>See [164-167:274; 169-172:275] all of these images are undated. Macewen’s handwriting features prominently amongst these minimal case notes. Macewen had distinctive handwriting, which can be cross-referenced to numerous archival sources such as the Macewen Papers, RCPSG10 and the Macewen Collection held at the GUABRC, Ref. DC79.

The earliest example relates to the case of R.D. who was admitted to the GRI on 25<sup>th</sup>

July 1882:

[A]ffected with talipes equinus of right foot, probably congenital. The foll. photographs were taken previous to operation ... the tendo-achilles was divided and the foot kept in the extension position and then afterwards flexed. As a result the foot assumed pretty nearly its usual position. The boy a short time after dismissal walked only with a slight halt. He was asked to return in a month.<sup>38</sup>

Although the photograph in the PJ is quite faded [110:234], the print has been trimmed, whereas its 'partner' in the CC is better preserved.<sup>39</sup> [111:234] It is also evident that the two prints were taken from the same negative, as both prints share an identical scratch.<sup>40</sup>

The first example in which different shots of the same patient appears in the PJS and CC dates to 1882, when Ms. O. was admitted to the GRI, with a tumour over the left side of the face. The case notes record that on 31<sup>st</sup> December:

Eighteen years ago this growth was noticed by the woman, situated near the outer angle of the zygomatic arch. At that time it was about the size of a pea and grew slowly until it attained the size of a filbert, at this it remained for at least a dozen years. Until about five weeks ago when it took on a rapid growth and assumed its present size. The photograph will represent the form.<sup>41</sup>

The accompanying portrait shows the woman looking towards the camera, but turning her head slightly towards the right. A slightly different shot appears in the CC, which shows Ms. O. averting her gaze. The print in the CC has been trimmed into an oblong

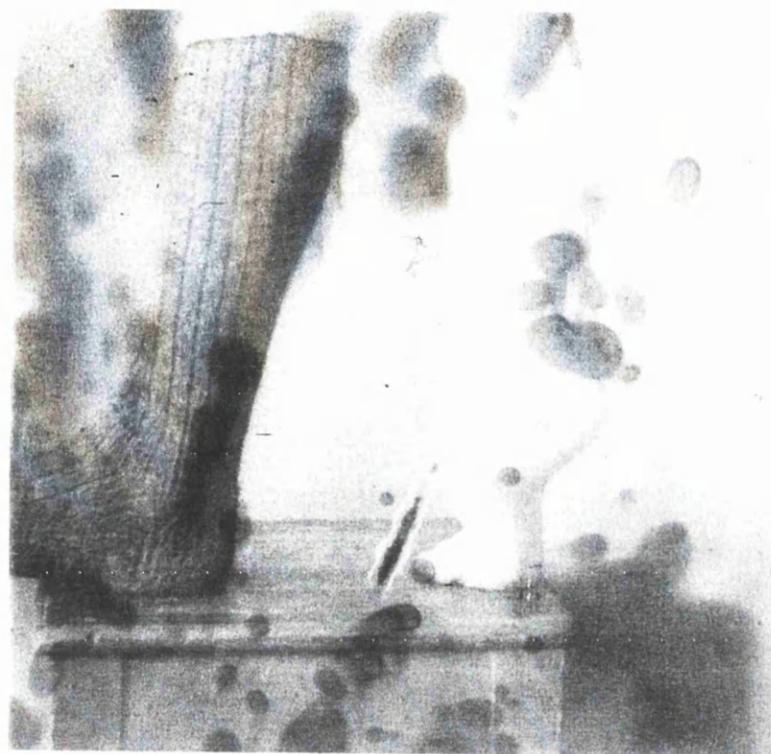
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<sup>38</sup>RCPSG10/9/3, 134. Beneath this text is another photograph. Unfortunately the details of the image are faded. I have however, located an account of this case in the GRI Ward Journal, Ref. HB14/5/8, 101, which records that on 'July 31<sup>st</sup> tendo achilles divided and foot put up in a rectangular gooch with extension knee to the torso drawing foot to an angle'. The same writer wrote details of the case in the ward journal and in the PJ.

<sup>39</sup>The image appears in the collection under the heading 'Talipes', HB14/19/69. Although 'D4' is written on the verso of the mount-board, this may be a later addition. The print measures 7 x 6 centimetres.

<sup>40</sup>None of Macewen's negatives survive.

<sup>41</sup>RCPSG10/9/3, 175-176. The remainder of the entry provides an account of the operation, coupled with a sketch and a description of the histological characters.



110



111

The accompanying portrait shows the woman looking towards the camera, but turning her head slightly towards the right. A slightly different shot appears in the CC, which shows Ms. O. averting her gaze. The print in the CC has been trimmed into an oblong shape.<sup>42</sup> On the verso of the board, there is a condensed version of the case notes, written by the same author as the PJ entry.

Similarly in October 1888 two photographs were taken of Ms. G. admitted to the GRI suffering from carcinoma of the mamma.<sup>43</sup> [112:236] The shot taken from the side was included in the PJ, whilst that taken straight on appeared in the CC.<sup>44</sup> [113:236]

I have identified eleven examples of photographs, dating from 1882 until 1891, that appear in both the PJS and the CC. These include a case of tubercular disease of the knee joint [114-115:237], an abscess of the mamma [116-117:238] and an ovarian tumour, later described as abdominal.<sup>45</sup> [118-119:239] These images are now distributed through the collection, and they provide insight into the character of the collection and how it evolved.

Some of the cases that appeared in the PJ and the CC can be cross-referenced to other sources. For example, a case of tempero-sphenoidal abscess from the PJS was accompanied by two photographs of the brain. The photographs were used as the

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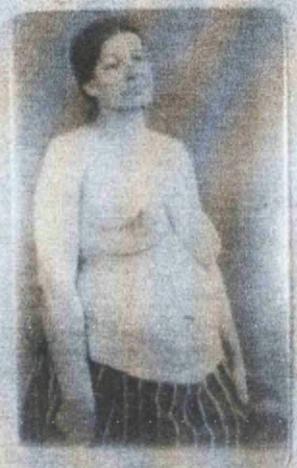
<sup>42</sup>HB14/19/12, 'Cancer, Head, Neck and Throat'.

<sup>43</sup>RCPSG10/9/11, 28.

<sup>44</sup>HB14/19/5 under the heading 'Acute Carcinoma of Breast' on the top right hand corner of the verso of the board, the numbers '70/78' appear.

<sup>45</sup>[114:237]Tubercular disease of the knee, 1888, Ref. RCPSG10/9/11, 149; [115:237] Tubercular disease of the knee, no date (n.d.), HB14/19/24; [116:238] Abscess of the mamma, 1883, RCPSG10/9/4, 44; [117:238] Abscess of the mamma HB14/1937; [118:239] Abdominal tumour

Carcinoma of Mammae  
~~of Mammae~~  
October 1888.  
Pr. operation.



112

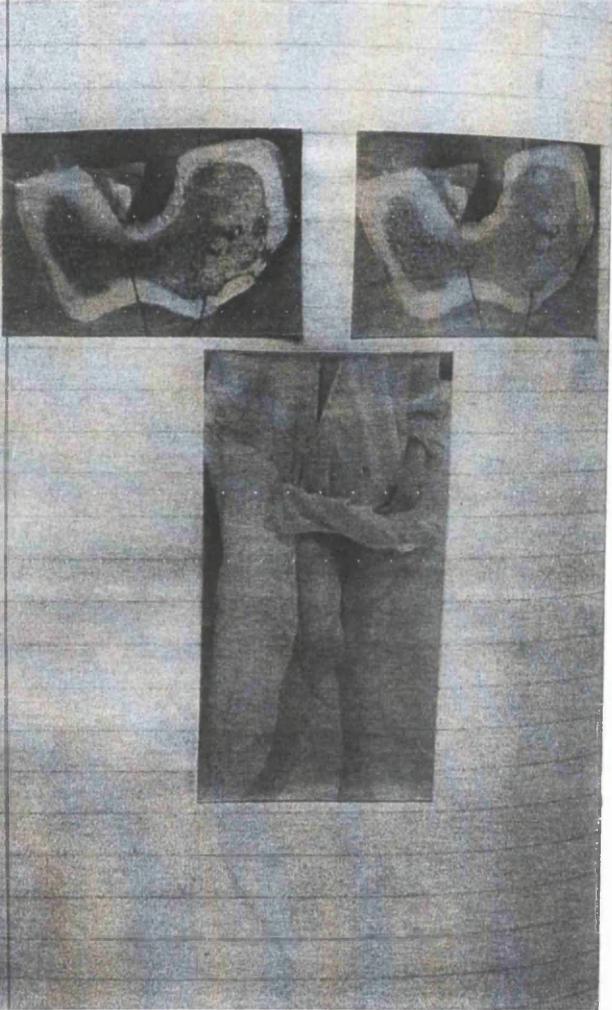


113

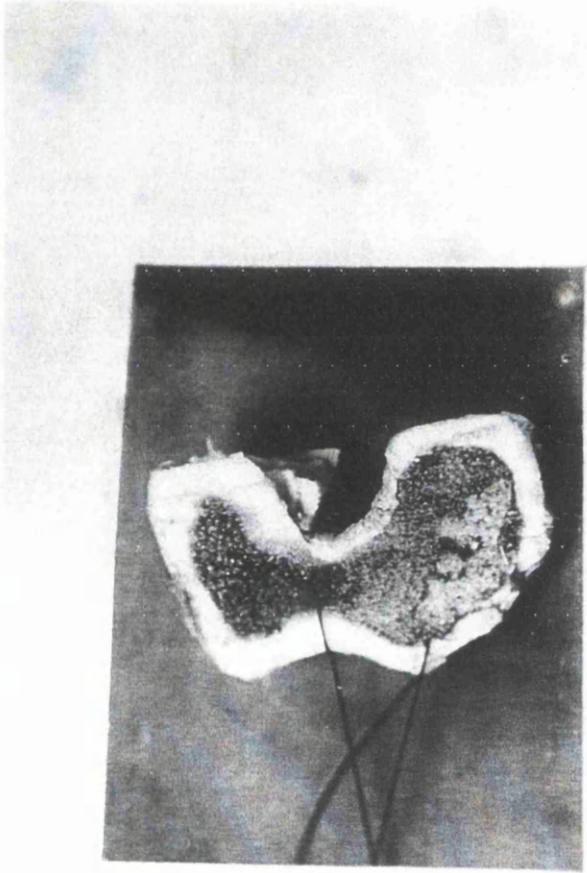
Acute Carcinoma

Tumour-  
Mamma  
Carcinoma  
acute involving skin

911



114



115

44  
The woman was admitted suffering from a  
menstrual abscess. It was opened surgically.  
The photograph conveyed shows the place of  
surgery at the bulge, it is indicated.



116

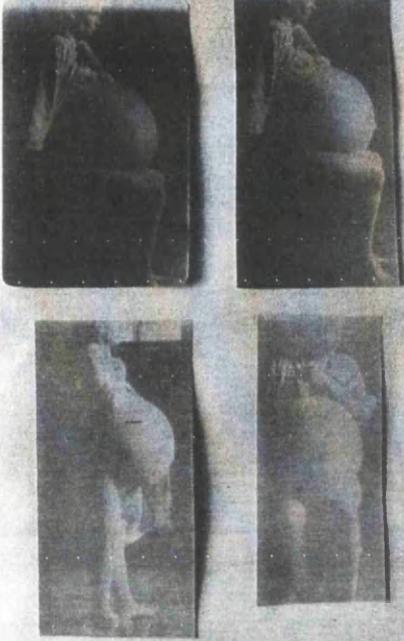


117

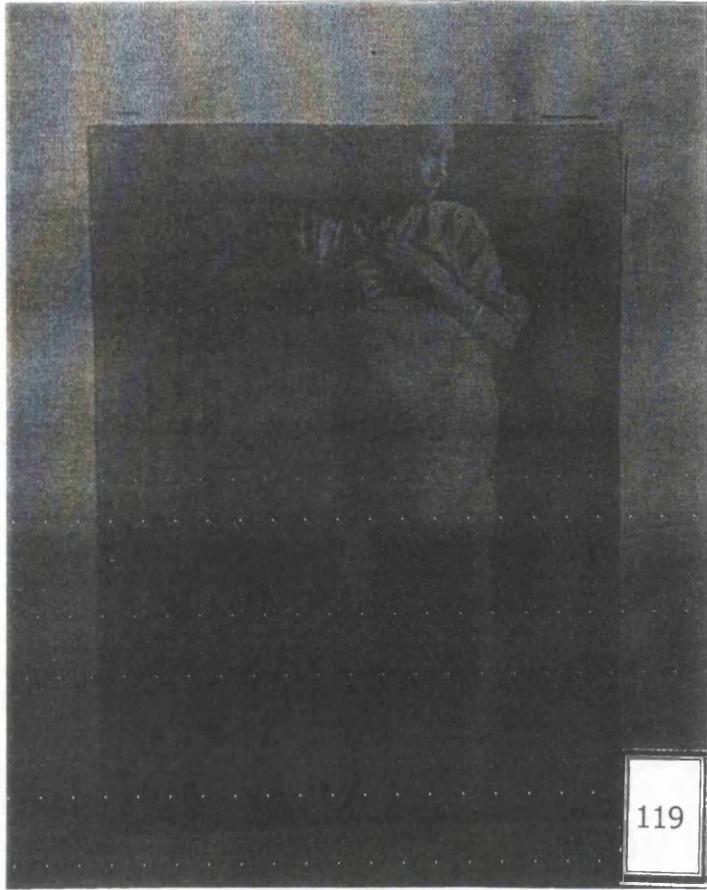
54.

Photograph of skin

Photograph taken from an abdominal tumor



118



119

Ovarian tumours, of enormous size.

712

Tumour -  
Ovarian

basis for engravings in Macewen's book entitled *Pyogenic Infective Diseases of the Brain and Spinal Cord*, published in 1893.<sup>46</sup> Some of the photographs from the PJS were to be re-used, thirty or forty years after they had been taken, when they appeared alongside those in the CC in Jack Macewen's *Text Book of Surgery*, published in 1922.<sup>47</sup> Some of these photographs evidently had a 'long life', particularly if they were of a rare or extreme condition, such as Molluscum Fibrosum or Cephalocele.<sup>48</sup>

The photographs which can be cross-referenced from the PJS to the CC were the beginnings of Macewen's collection. These early examples were organised numerically. As the collection grew over a period of thirty years or so a series of new criteria, such as lettering, table and box numbers were used to organise the collection. There were also changes in Macewen's photographic practice when he moved from the GRI to the WI in 1892.

### ***Accessory Images and Border Information: Macewen's Photographic Practice at the Glasgow Western Infirmary***

A search of institutional records, such as Minute Books for both the GRI and the WI,

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RCPSG10/9/4, 54; [119:239] Ovarian tumour HB14/19/11, n.d.

<sup>46</sup>RCPSG10/9/8, 116. D.C. was admitted to Ward 21, in 1891, suffering from a large necrosis of the temporo-sphenoidal lobe. Macewen operated, attempting to remove the abscess. Sixteen hours later the patient died. Two photographs of the brain accompanied the case notes. Two of the photographs were used by T. & A. Annan & Co. as the basis of engravings, see Fig. 48 'Necrosis of Brain'. This shows an aspect of brain after hardening in spirit, showing cavity in temporo-sphenoidal lobe after removal of sloughs (Case XX) and Fig. 49, 'Necrosis of Brain, Sagittal section of hardened brain though centre of left temporo-sphenoidal lobe, showing gap remaining after removal of slough' (Case XX). See Macewen, W. (1893) *Pyogenic Infective Diseases of the Brain and Spinal Cord: Meningitis Abscess of Brain, Infective Sinus Thrombosis* (Glasgow: James Maclehose & Sons) opposite page 116, 118.

<sup>47</sup>Macewen, J.A.C. (1922) *A Text Book of Surgery for Students and Practitioners* (Glasgow: Maclehose, Jackson & Co.).

<sup>48</sup>A case of fibroma molluscum appeared in Volume XIII, RCPSG10/9/8, 69. J.G. was admitted to the GRI in February 1891. Another print appeared in J. A.C. Macewen's *Text Book of Surgery* (1922) see Fig. 87, 137. A case of cephalocele was included in Volume III of Macewen's PJ, RCPSG10/9/3, 4-5,

has not revealed any information regarding Macewen's photographic activities. It seems likely, therefore, that he funded his photographic practice himself. Thus, the photographs were his own rather than belonging to the institution. As in the previous chapter, I shall use Martin Kemp's theory of 'border information', i.e. details contained within the background of the images, to reconstruct aspects of Macewen's photographic practice at the WI.

There are no surviving plans of Macewen's operating theatre at the WI it was demolished some years ago. There are however, a few surviving photographs, in which one can see that the theatre had white walls [120:242], tiled floors, large windows [121-122:243], radiators [123:243], at least one tiled wall [124:244; 125:245] and a viewing gallery. [126:246] Some of these structural details are included in the backgrounds of Macewen's photographs. Using these clues it is possible to identify approximately where in the operating theatre, patients were photographed. Macewen's operating theatre at the WI, had a floor covered with white tiles, with a line of dark-coloured tiles that followed the shape of the room. The line of the dark coloured tiles show that there was at least one recess in the theatre, which was one location used for photography.<sup>49</sup>[127-129:247] This demarcated area was also used to store equipment and props, including backdrops, chairs, stools and stands etc. At the WI, ones sees a wider range of backdrops in use than in the GRI. This

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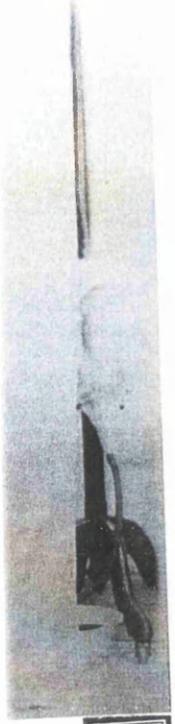
dating from September 1881. One of the six photographs appeared in John Macewen's text book over forty years later entitled 'Cephalocele' see Figs. 448 & 547.

<sup>49</sup>[120:242] Ref. HB14/8/51, circa 1923; [121:243] HB14/19/66, 1898; [122:243] HB14/19/50, n.d.; [123:243] HB14/19/60, n.d.; [124:244]; Turner, G.-G. (1939) *The Macewen Outlook in Surgery* (Glasgow: Robert Maclehose & Co., Ltd.), 13; [125:245] HB14/19/31, n.d.; [126:246] DC79/182, n.d.; [127:247] HB14/19/66, n.d.; [128:247] RCPSG10/9/7/4, n.d.; [129:247] RCPSG10/Box 5, File 10.

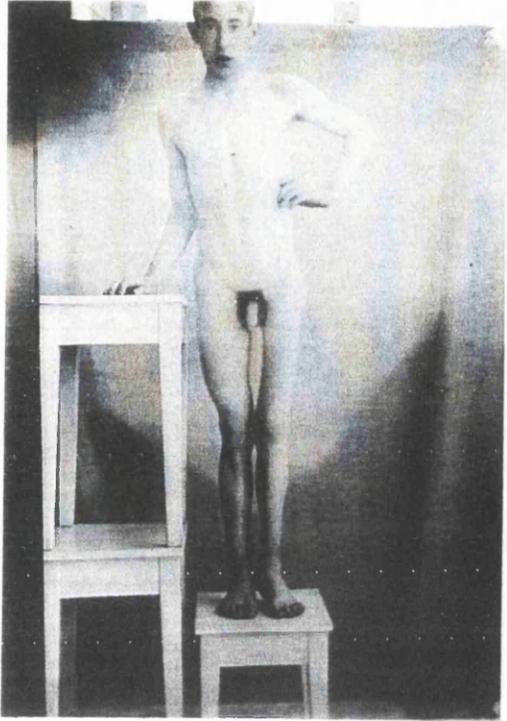


1 2 0

2 4 2

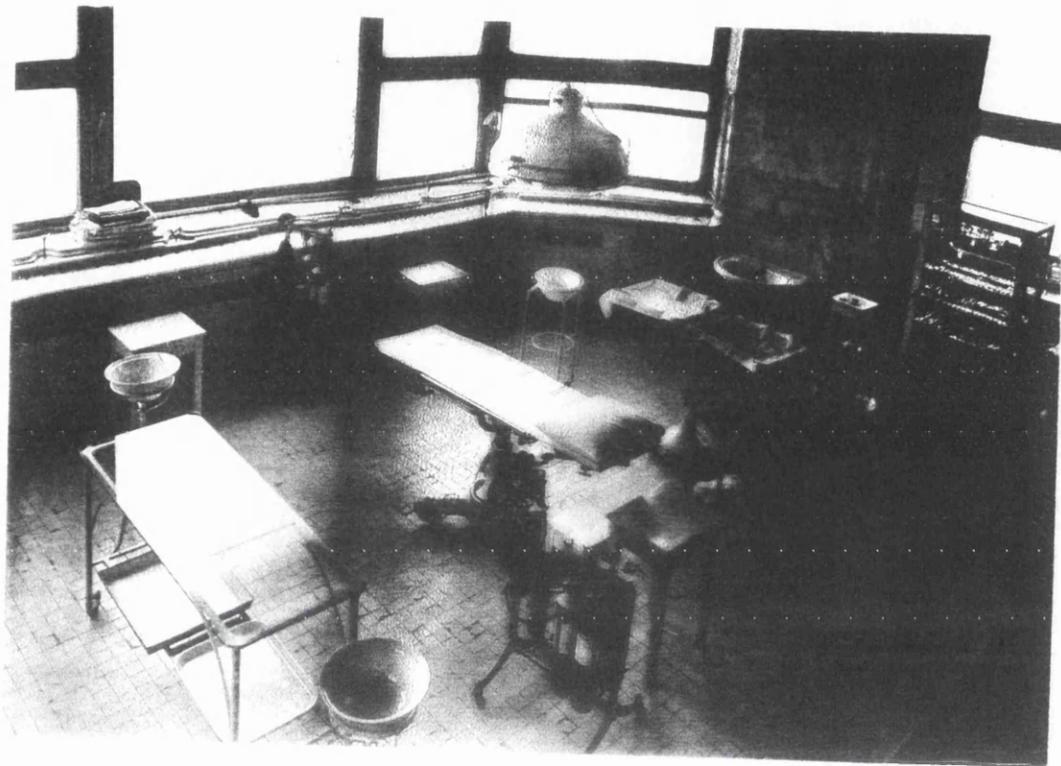


121

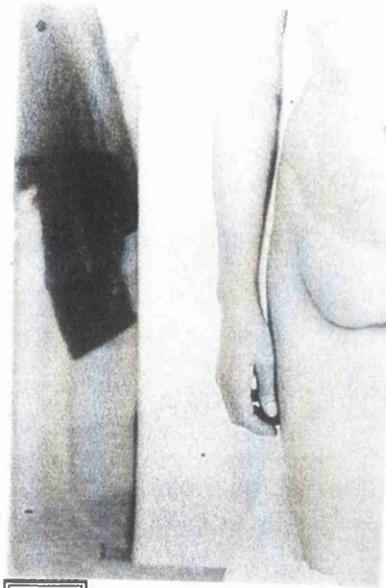


122

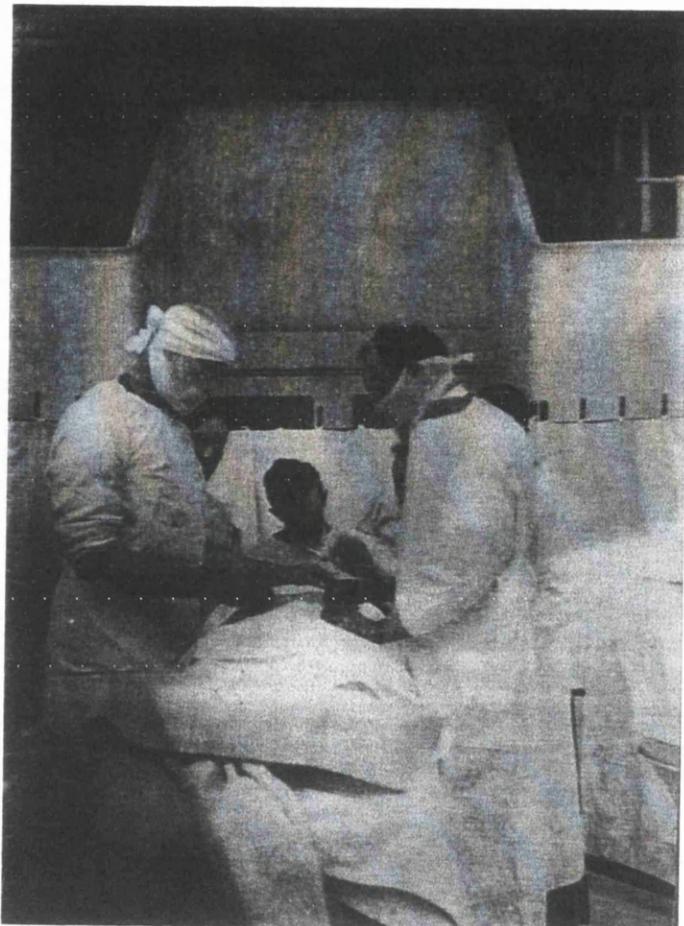
123



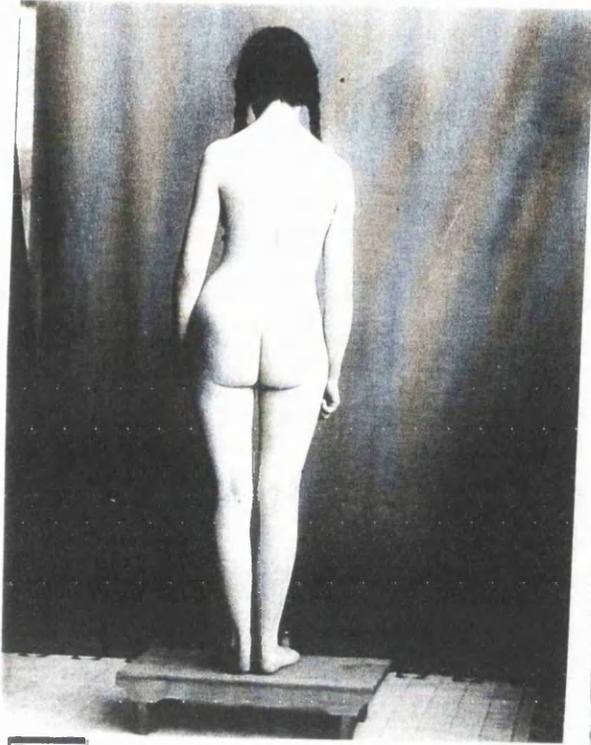
1 2 4



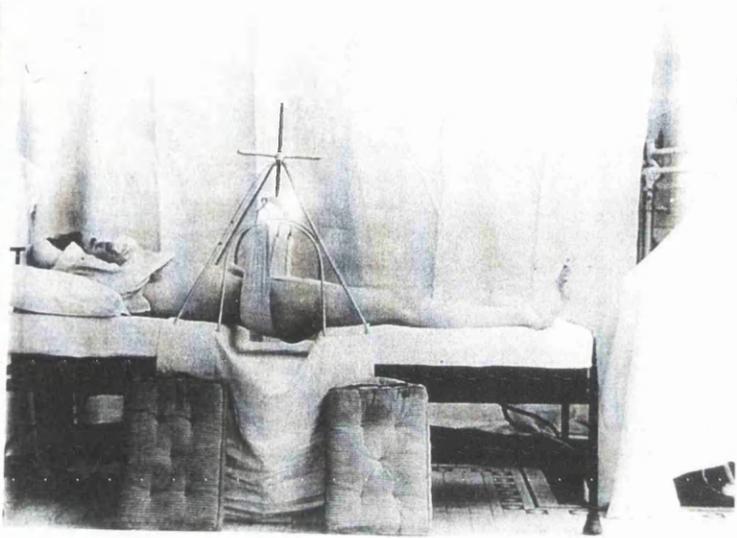
125



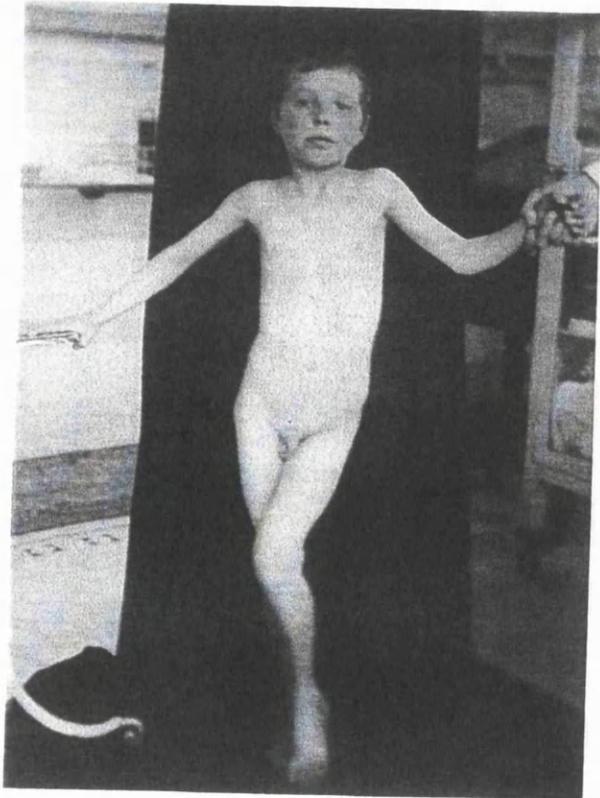
126



127



129



128

included a dark coloured blanket, similar to one used at the GRI, as well as light and dark coloured screens, or a white sheet.

Macewen probably still used a plate camera, as he had done in the GRI. This would be set up on a tripod in the makeshift studio. The dry-plates were loaded in the plate holders ready for exposure. Exposure times were then a matter of seconds, recording the blink of an eye.<sup>50</sup> [130-131:250] On the whole the natural light was used, provided by the large windows in the operating theatre. Some photographs were taken using artificial light.<sup>51</sup>

Most patients were photographed a couple of days after their admission to the WI. The dates written on the verso of the boards on which the photographs are mounted correspond, roughly, to the admission dates in the WI ward journals. Prior to surgery, the part of the body to be operated upon was close shaved (evident in some of the photographs) and cleansed according to 'Macewen's method'.<sup>52</sup> [132:251-252] This gives some of the images a statuesque quality, see Appendix IV.

Specialised stands and head braces were used to support the patient in the desired pose.<sup>53</sup>[133-135:253] Some patients were photographed wearing slippers [136-138:254], dark coloured coats [139-141:254] and dressing gowns, which were evidently studio props.<sup>54</sup> Other patients' bodies were draped with sheets, giving a

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<sup>50</sup>[130:250] Sarcoma, carcinoma of breast, 1904, HB14/19/4; [131:259] Fungating sarcoma, 1905, HB14/19/4.

<sup>51</sup>These details are often referred to in the case notes written on the verso of the boards, see for example, [212-215:300]

<sup>52</sup>On page 251 of this thesis reproduces an account of Macewen's method which was originally entered in a notebook by one of Macewen's students, Archibald Young, in 1894. See Young, A. (circa 1894) 'Student Notes III', Ref. RCPSG39/1/4; [132:252] Hernia, n.d., HB14/19/5/36.

<sup>53</sup>[133:253] Dactylitis, n.d., HB14/19/71; [134:253] Rickets, 1906, HB14/19/64; [135:253] Osteotomy, excision of knee, n.d., HB14/19/64.

<sup>54</sup>[136:254] Tumour mamma carcinoma scirrhus, n.d. HB14/19/3; [137:254] Tumour mamma (right) carcinoma scirrhus, n.d., HB14/19/3; [138:254] Tumour carcinoma (left), n.d., HB14/19/3; [139:254]

classical quality to some of the photographs.<sup>55</sup> [142-143:255; 144-146:256; 147-148:257; 149-150:258]<sup>56</sup> Some diseases are repeatedly photographed in a set way. For example, the faces of patients suffering from carcinoma of the breast were nearly always included in the image, whereas those suffering from hydrocele were represented by cropped shots of the groin.<sup>57</sup> [151:259] There are few attempts at deliberately anonymising the patient, this being achieved through a cropped shot or an arm raised to obscure the face.<sup>58</sup> [152-153:260] Once the negatives were processed, fixed and dried, they were placed in contact with the emulsion side of either gloss or matt photographic paper, and then the exposure was made.<sup>59</sup> The print was then developed, fixed and washed. While Macewen's photographs at the GRI were taken primarily for inclusion in his *PJS*, they expressed his research interests, and documented his surgical successes. In the later photographs taken at the WI however, there is shift from celebratory cases to an emphasis on a pathological narrative of visual pathology, which ranged from an indistinct lesion to a large or acute tumour.

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Tumour carcinoma mamma (1897), HB14/19/3; [140:254] Lymph-adenoma, 1897, HB14/19/11; [141:254] Gastrostomy, 1897, HB14/19/11.

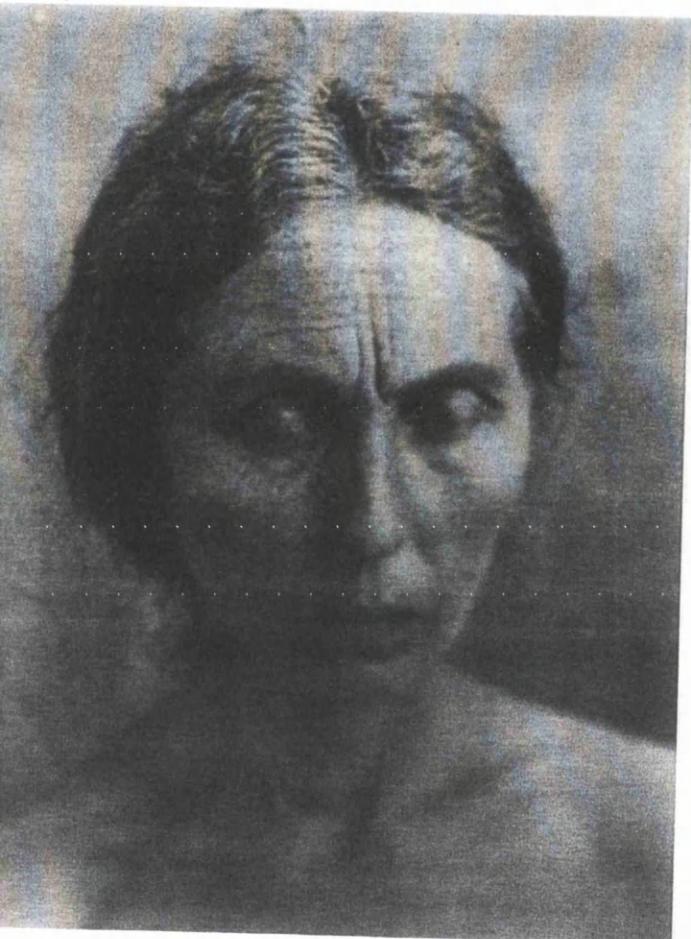
<sup>55</sup>[142-143:255] Tumour lipoma, 1902, HB14/19/54. The collection also includes small number of 'negative prints'. This technique offered a quick way of reproduced an image using the original print as a contact, i.e. the copy was made from the existing print rather than the negative. However, the copy is in reverse. See [144:256] Tumour carcinoma of breast, 1900; HB14/19/3; [145:256] Tumour scirrhus of mamma, 1900, HB14/19/3; [146:256] Tumour mamma acute carcinoma, 1902, HB14/19/5; [147:257] Enlarged glands, tubercular neck, 1903, HB14/19/23; [148:257] Epithelioma of lip, 1907, HB14/19/21; [149-150:258] Ancylosis of knee, 1902, HB14/19/58.

<sup>56</sup>See also the third section of Chapter Six.

<sup>57</sup>[151:259] Hydrocele, tunica vaginalis, n.d., HB14/19/51.

<sup>58</sup>[152:260] Hernia, femoral, 1910, HB14/19/31; [153:257] Tumour carcinoma scirrhus, 1899, HB14/19/4.

<sup>59</sup>It is unclear exactly where Macewen processed his negatives and prints. According to Macewen's former student, and successor to the Regius Chair, Archibald Young, there was a 'small room up the Theatre turret stair, originally meant for photographic purposes,' Young, A. (1936) 'Memoranda', *Archibald Young Papers*, RCP39/3/6/6/72, 7. Young goes on to state that at the WI, Macewen 'had a large private room for study, and for storage of photographs, illustrations, and special apparatus, &c. He utilised one of the side rooms for the purpose.'



130



131

Macewen's method :- ① <sup>Introduced into</sup> Warm water & rubbed w/ Potash soap  
also arms up to the elbows.

for occasional use ② 43 Mustard used as a pouf  
has a very powerful  
bactericidal action. 3 min.

③ Apron put over clothing.

④ Steril hands to air  
1-20 Carb. for a few min.  
1-40 " longertime

Preparation of part to be operated on.

① Patient must have a bath.

② Fresh clothing desirable.

③ Part to be close shaved.

④ " " " scrubbed w/ Potash soap.

⑤ " " " rubbed with Turpentine.

⑥ " " " soaked with methyl. spirit.

⑦ If possible 3 or 4 days should elapse.

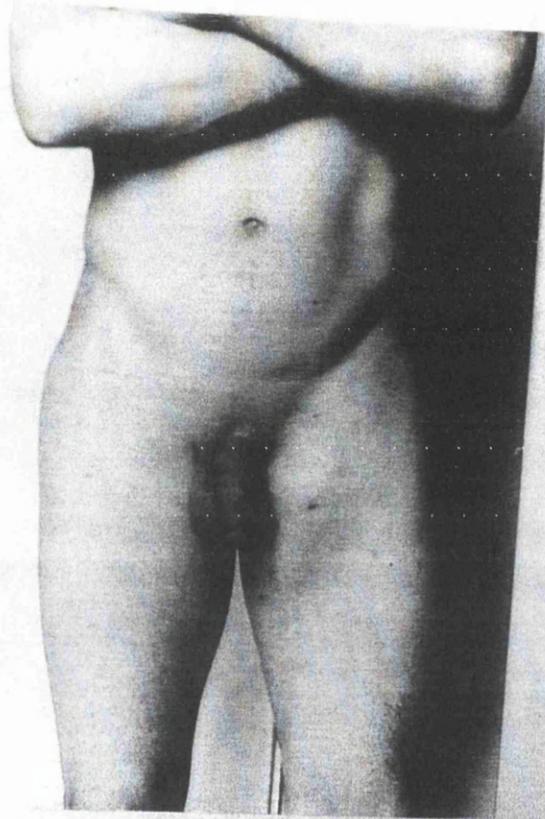
⑧ Lint w/ 1-40 Carb. Sol. should be applied.

⑨ To soften skin of foot, Salicylic pack  
for some days, also.  
should be applied for a week.

Instruments :- ① Wooden handles are not advisable.

② Scissors on legs " "

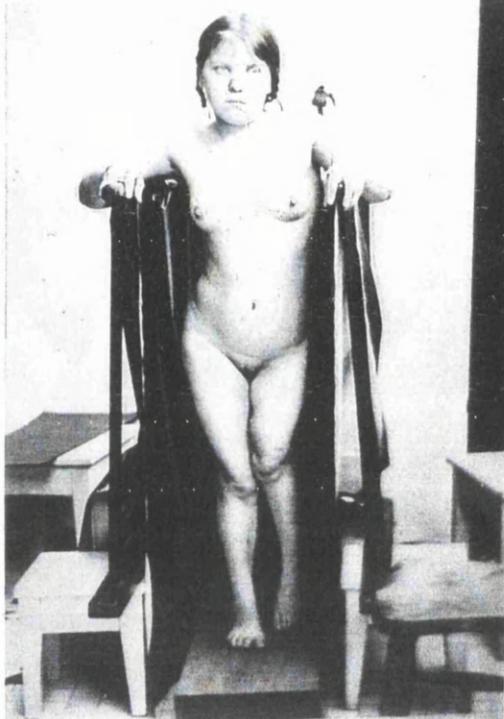
③ Mullings " " "



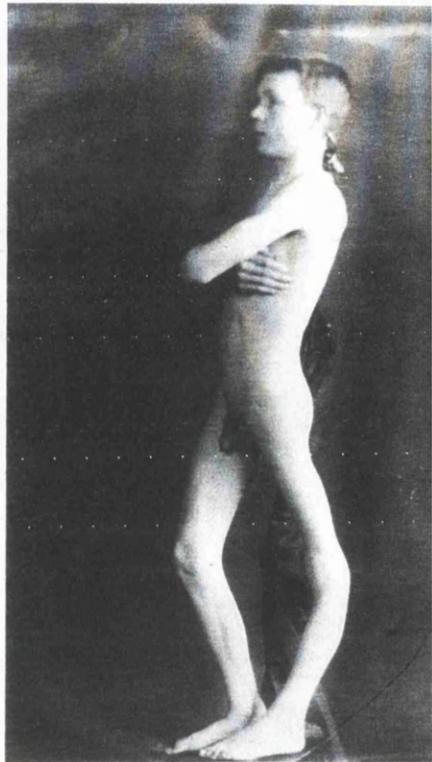
132



133



134



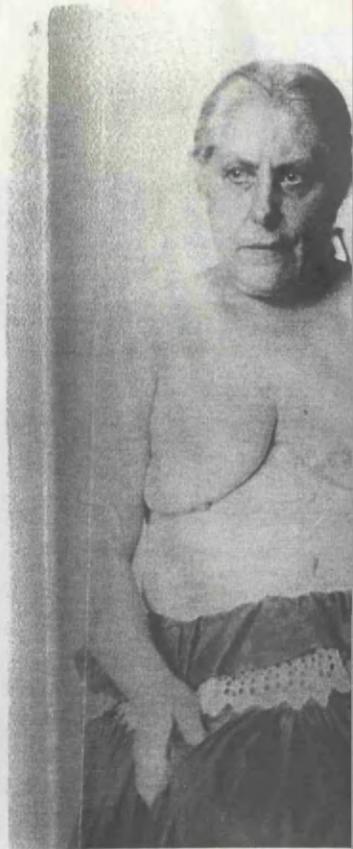
135



136



137

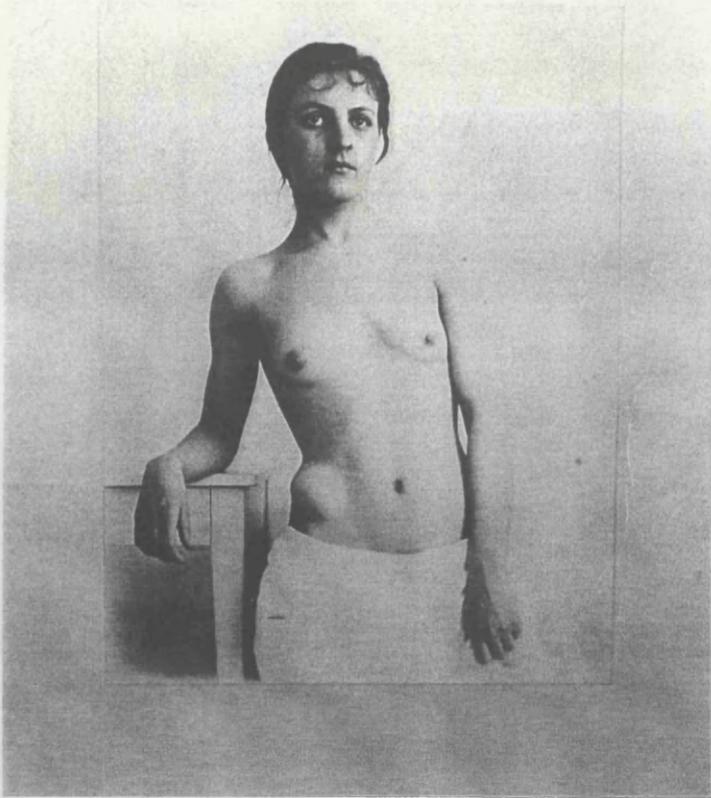


139

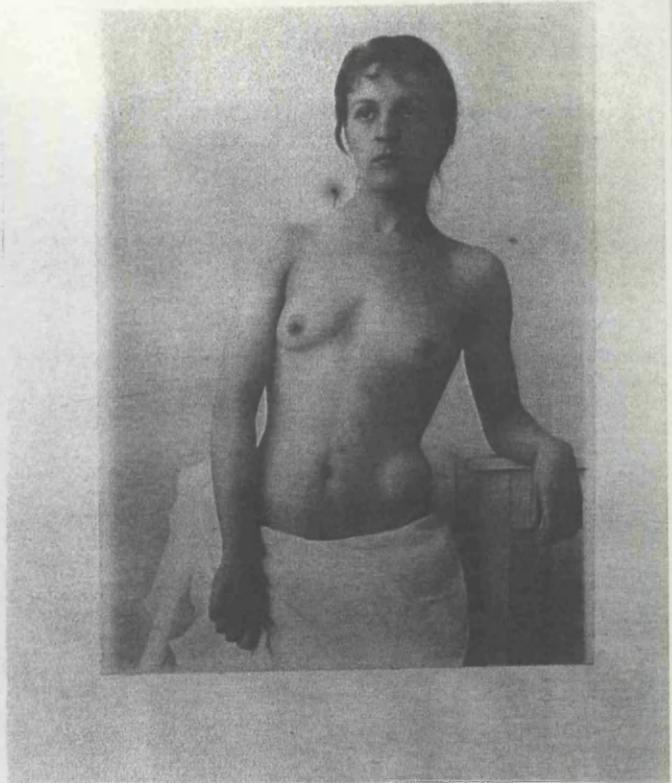


140





142



143

144

Tumour

Lipoma  
 (of right side)

The print is a negative, thus the right side  
 appears to be on the left

~~W. J. ...~~ W. J. ...  
 Oct 13<sup>th</sup> 1902



144



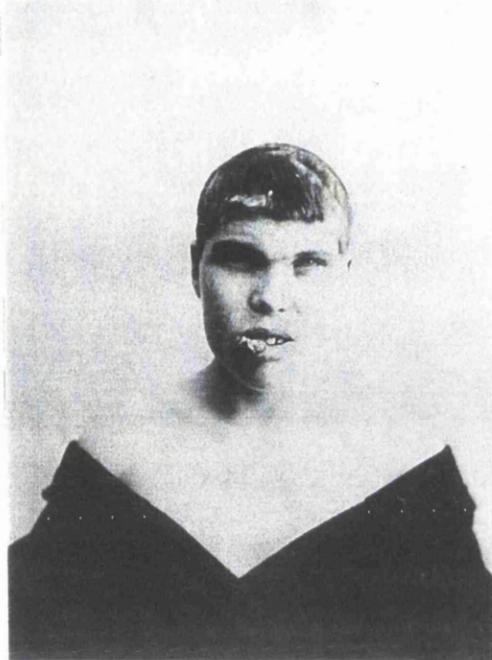
145



146

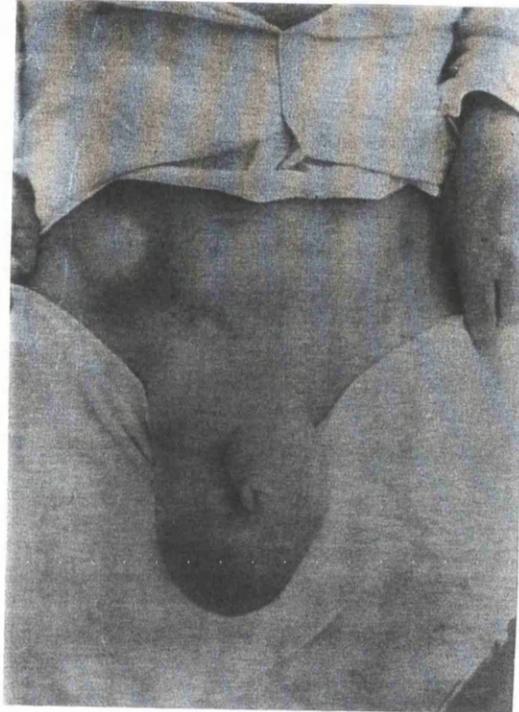


147

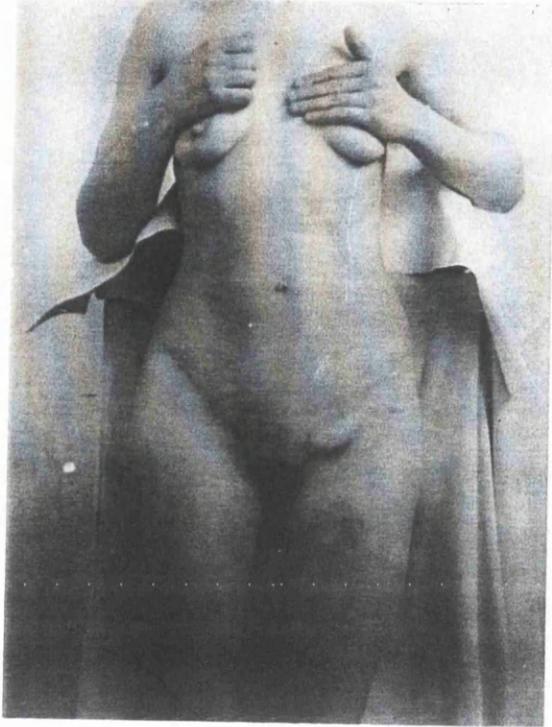


148

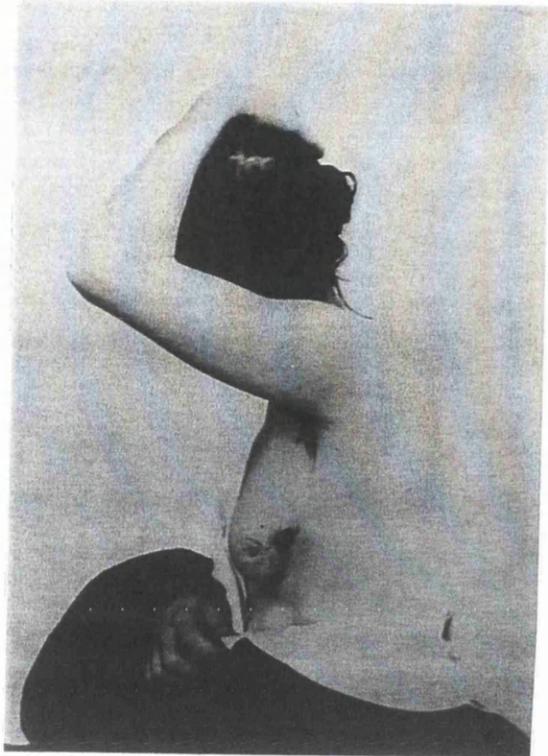




151



152



153

## **Chapter Six, Section II: Demonstrating Macewen's Collection of Clinical Photographs**

Having outlined Macewen's practice of taking photographs the following section discusses how they were used. As previously mentioned, an 'original' scheme of classification accompanies the collection, which lists four "Demonstrations": 'Tumours'; 'Deformity'; 'Hernia'; and 'Fractures and Dislocations'.<sup>60</sup> Each demonstration is then divided into sub headings.<sup>61</sup> Using this scheme in conjunction with the numerical, lettering, box and table systems it is possible to reconstruct parts of the 'Tumour', 'Hernia' and 'Deformities', "Demonstrations". Thus allowing us to see how the CC would have been used in surgical demonstration classes. Photographs from 'Fractures and Dislocations Demonstration' are no longer in the collection.

There is explicit textual evidence describing how the CC was used in surgical demonstration classes. According to Charles Duguid, one of Macewen's students during the early twentieth century:

A most helpful feature and one eagerly looked forward to by the men was the Demonstration of specimens and casts on alternate Fridays. This took place in the operative surgery classroom at the University — a large tiled hall with glass roof. Casts of actual cases, specimens and photographs bearing on the work done at the hospital since the previous demonstration were laid out on long tables. Subjects of such demonstrations that come readily to mind are "groin swellings", "tumours of the breast", "diseases of bone". If cases of hernia or hydrocele had been under discussion in the hospital wards there would be a demonstration of specimens illustrating groin swellings, including scrotal and testicular conditions with which they were liable to be confused, while a scirrhous cancer of the breast would be associated with the whole range of breast affections. These demonstrations greatly assisted the students to put cases they had seen in their perspective.<sup>62</sup>

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<sup>60</sup>Ref. HB14/19/1. I have been unable to identify the author of the original scheme of classification. These pieces of paper were used for reference purposes, as holes are evident in the top and bottom corners of each sheet of paper.

<sup>61</sup>Carcinoma, for example, is divided into regions of the body, such as 'head, neck, throat', etc.

<sup>62</sup>Duguid (1957), 6-7. Dr Jack Macewen assisted his father with these demonstration classes for over

Duguid provides us with a brief description of how and where the demonstrations took place. Macewen's operative surgery classroom at the University, with tiled walls and a glass roof, were part of his new surgical buildings that opened in 1901. The University plans show an extension, with a basement and ground floor.<sup>63</sup> The basement is described as being for 'research and experimental purposes'. One room may have been designated as a dark room, behind which was a hall and cloakroom. Above these rooms, at ground level, were the 'Professor's Room', a laboratory, an examination room and a private operating room. At the rear of these buildings, the basement contained a coffin store, a boiler house and a cold store. Only parts of the basement and ground floor of the building survive. The basement is occupied by the Department of Engineering; while the ground floor, and part of the operating hall, is now part of the Department of Anatomy at the University of Glasgow. [See Appendix Three]

Duguid's other comments, that photographs were laid out on long tables, are confirmed in the University of Glasgow Court Minutes, which record that on 27<sup>th</sup> January, 1910, a request was received:

To provide 27 squares of ¼ " plate glass for the purpose of covering photographs arranged on tables in the surgical laboratory and used at demonstrations at an estimated cost of £8. In all 54 such squares are required, but Sir William Macewen has indicated that he would be satisfied with one half at present.

In February of the following year, there was another request from:

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twenty-five years.

<sup>63</sup>Glasgow University Extension. Plans of New Surgical Buildings, Basement, Ground Floor and Roof GUABRC, GG1/18/1, Glasgow University Court Minutes 1909-1910, Ref. C1/1/17, 63.

[T]he Surgery Department to provide 27 squares of ¼" plate glass for the purpose of covering photographs arranged on tables in the surgical laboratory and used at demonstrations at an estimated cost of £6.65. Sir William Macewen applied for 54 such squares last year, but was satisfied with half of them.<sup>64</sup>

Thus, we have an idea of where the photographs were used, and that they were laid on tables, on top of which were placed sheets of glass. Unfortunately, it must be acknowledged there is no information relating to the dimensions of the tables or the glass, therefore it not possible to estimate how many photographs were on each table. Some of the case notes written on the verso of the boards include table numbers; for example photographs of Syphilis were listed as being on 'Table 8'.<sup>65</sup> [154-156:264] On these items there is also reference to 'Box 8', presumably this was where the photographs were stored. According to the case notes there were up to eighteen tables. 'Hernia: Comparisons' were on 'Table 18'. The order in which items were laid out on the table is also recorded, for example, the photographs of Osteomyelitis were on 'Table 2'.<sup>66</sup> Using all of the aforementioned criteria I shall reconstruct parts of three of the demonstrations, in an attempt to understand how they would have been seen by medical students.

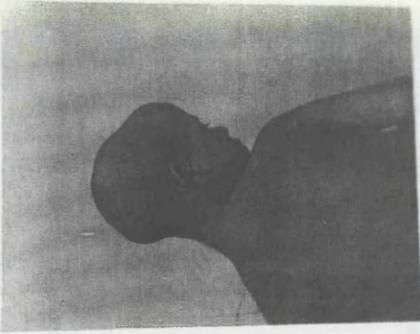
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<sup>64</sup>*Glasgow University Court Minutes 1910-1911*, C1/1/18, 60.

<sup>65</sup>HB14/19/67.

<sup>66</sup>HB14/19/68.

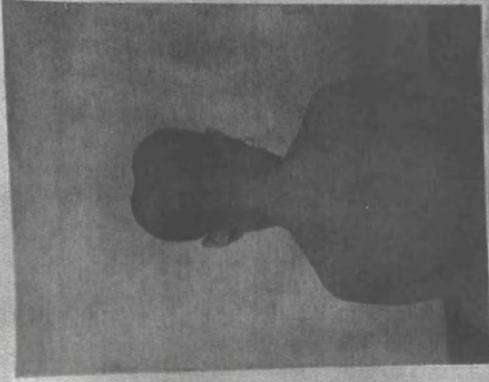
*Syphilitic  
Congenital  
Roses on head  
Observed*



154



155



156

## ***Tumour Demonstration***

According to the original scheme of classification the tumour demonstration is organised into two parts. I have identified two hundred and thirty five items that were once part of the whole tumour demonstration, many labelled with the letter 'T'.<sup>67</sup> Part 1 is divided into: Sarcoma; Carcinoma and Epithelioma. Part 2 is subdivided into thirteen sections, which includes Goitre, Keloid and Rodent Ulcer. The GGHBA index for the collection is presented as an overlay over the original scheme of classification. [267, 268]

### ***Tumour Demonstration 1***

#### ***1. Sarcoma***

Using the diagnostic information I have identified forty-six sarcoma photographs from the Tumour demonstration. These are numbered, but not consecutively, from twenty six to two hundred and forty-two; and date from 1896 to 1907. These photographs are now located in the GGHBA index under Files 3, 6, 11 and 12.<sup>68</sup> The sarcoma demonstration includes contributions by the surgeons Alexander Patterson and James Hogarth Pringle.<sup>69</sup> Although I have been unable to reconstruct the bulk of the sarcoma demonstration, one can see in these examples that multiple shots were taken of the same patient, in slightly different poses, to establish the visual association and

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<sup>67</sup>The overlay shows the GRI CC References.

<sup>68</sup>GGHBA, GRI Clinical Photographs, Refs. HB14/19/3, HB14/19/6, HB14/19/11, HB14/19/14.

continuity between patient-portrait and specimen.<sup>70</sup> [157-159:270;160-161:271;162-163:272] In some cases, drapes were used to visually isolate the diseased body part, prior to amputation for instance. [162:272]

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<sup>69</sup>Their links with photography will be discussed later in this chapter.

<sup>70</sup>The number of the photograph will be reference along with its original numerical system. For example photograph 157 was marked as 'T160', and therefore will be presented as 157/T160; 158/T161; 159/T162.

All items, can be found under Reference HB14/19/12; 160/T168; 161/T169, HB14/19/12; 162/T163; 163/T164, HB14/19/12.

**HB14/19/3-5**

**HB14/19/3-5**

**HB14/19/21**

**HB14/19/71**

**HB14/19/61**

**HB14/19/12**

**HB14/19/56**

**HB14/19/71**

**HB14/19/54**

**HB14/19/47**

**HB14/19/20**

**HB14/19/23**

**HB14/19/40**

**HB14/19/65**

## Tumour Demonstration

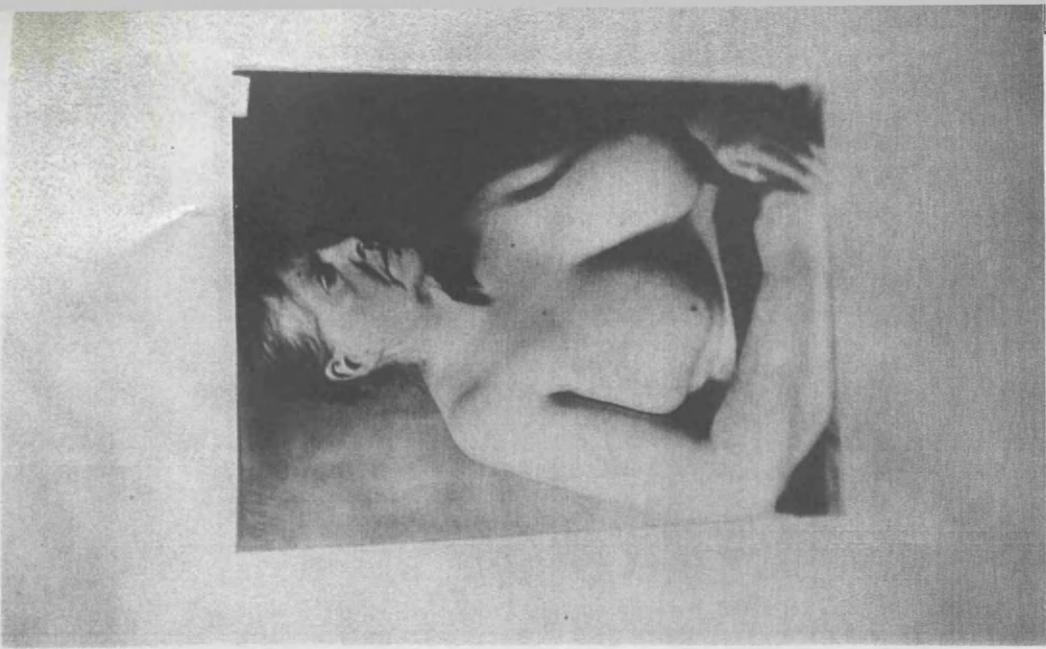
(1.)

1. Sarcoma
  2. Carcinoma
  3. Epithelioma
- 
- 

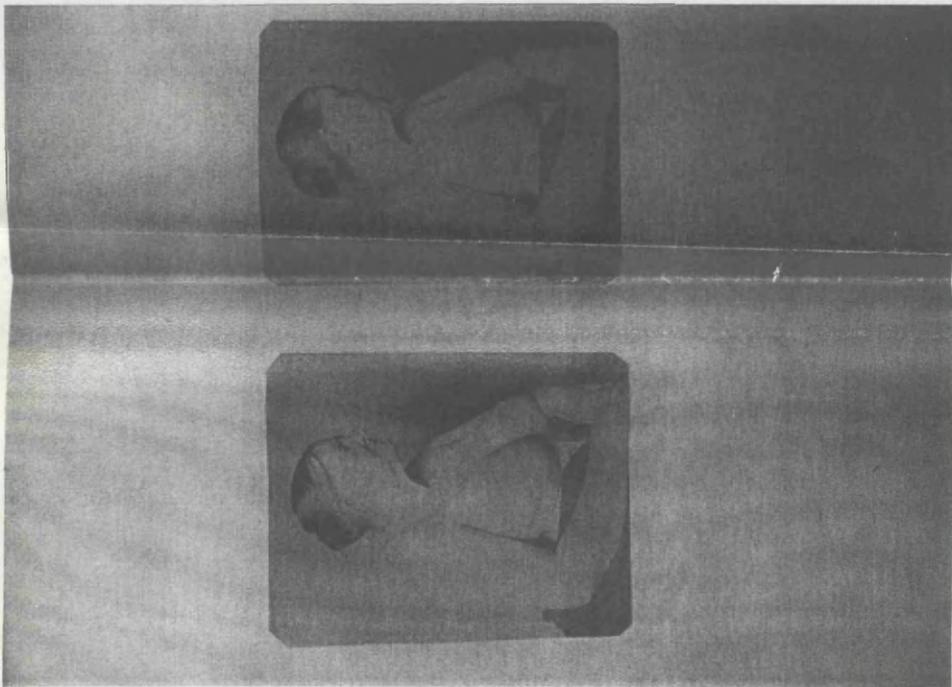
## Tumour Demonstration

(2.)

1. Goitre
  2. Papilloma
  3. Fibroma
  4. Keloid - Fibrosium
  5. Keloid (after Burn)
  6. Lipoma
  7. Neuroma
  8. Exostosis
  9. Ochronoma
  10. Lymph Adenoma
  11. Tuberculous Glands
  12. Angioma
  13. Rodent Ulcer.
- 
-



1



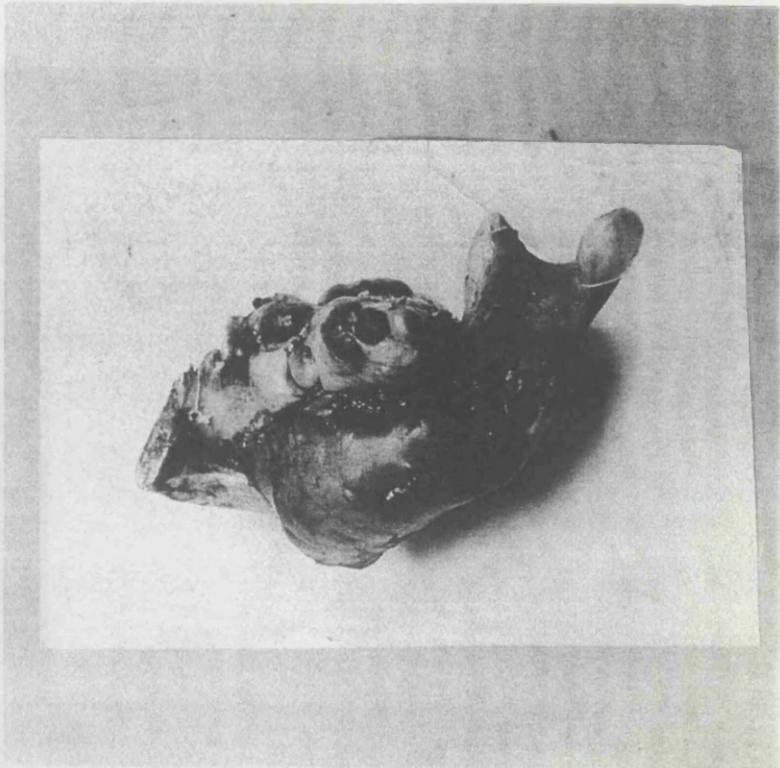
158



157



160



161

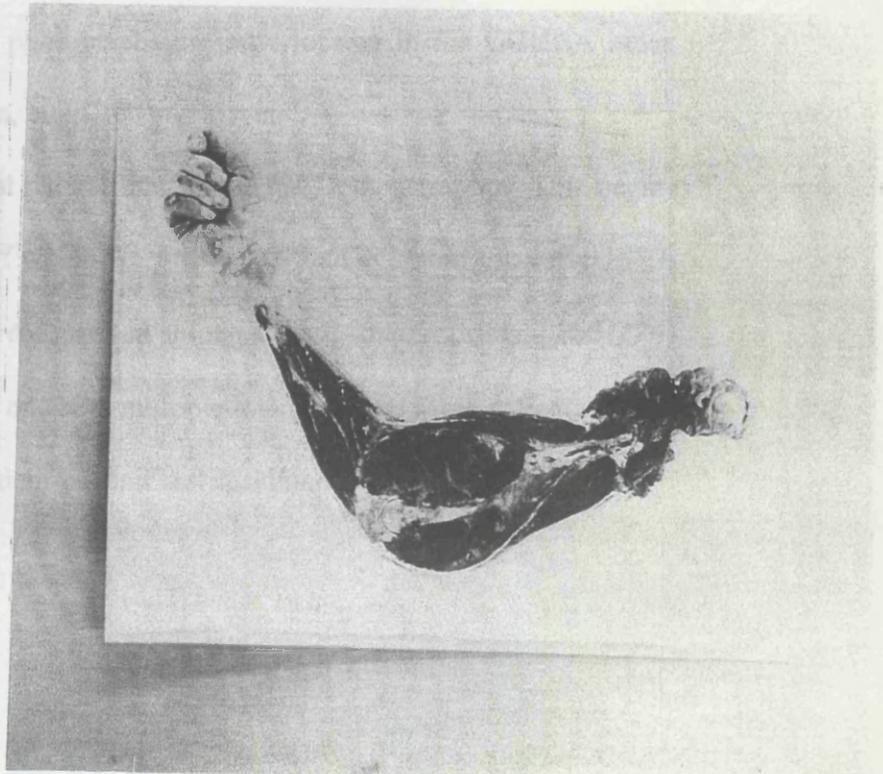
2. Carcinoma

I have identified one hundred and one Carcinoma photographs, the largest and earliest group of photographs in the collection. The prints are numbered, but not hundred and eighty four; and date from 1895 to 1913.

"ation" does not feature on the verso of the small of the



162



163

1. OCHRA, ORI Clinical Photographs, RBK, HB14/1903, HB14/1904, RB14/1911, HB14/1914

## 2. Carcinoma

I have identified one hundred and one Carcinoma photographs, the largest and earliest group of photographs in the collection. The prints are numbered, but not consecutively from one to one hundred and eighty four; and date from 1895 to 1913. The 'T' for "Tumour Demonstration" does not feature on the verso of the small of the carcinoma photographs. These photographs are now located in the GGHBA index under files three, four, five, seven, eight, ten and eleven.<sup>71</sup>

I have reconstructed the first part of the Carcinoma Demonstration. This begins with some small prints, many of which were taken at the GRI from the early 1880s onwards. Prints of a later date were inserted amongst these smaller prints. [168:274] As in the Sarcoma photographs, one sees multiple images of the same patient, as well the visual continuity between patient-portrait and specimen.

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<sup>71</sup>GGHBA, GRI Clinical Photographs, Refs. HB14/19/3, HB14/19/6, HB14/19/11, HB14/19/14.

The examples shown here are arranged in clusters according to the numerical system. One can see some of Macewen's early photographs, taken at the GRI. [164-167:274]<sup>72</sup>; [169-172:275].<sup>73</sup> These contrast with those taken at a later date, when Macewen was at the Glasgow WI from 1892 onwards, see for example, [173-177:276];<sup>74</sup> [178-180:277];<sup>75</sup> [181-183:278]<sup>76</sup>.

Sometimes the shots taken after surgery were placed in front of the 'before' shot.<sup>77</sup> [184-187:279] Later shots also tend to be taken against light coloured backgrounds, rather than dark. On the whole, these later images tend to be sharper, and closer to the subject, therefore cutting out superfluous background details. Multiple portraits of the same patient were placed next to each other.<sup>78</sup> [188-191:280]

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<sup>72</sup>164/1; 165/2; 166/3; 167/5; 168/4; all HB14/19/3.

<sup>73</sup>169/12, HB14/19/4; 170/13; 171/14, HB14/19/3; 172/16, HB14/19/4.

<sup>74</sup>173/16; 174/17; 176/18; 177/19, all HB14/19/4; 175/17, HB14/19/3.

<sup>75</sup>178/23; 179/24, HB14/19/4; 180/25, HB14/19/3.

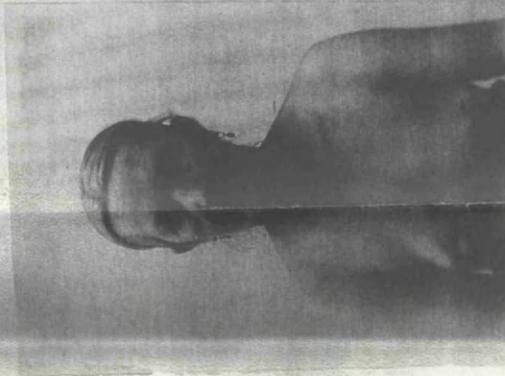
<sup>76</sup>181/54; 182/55; 183/56, all HB14/19/10.

<sup>77</sup>184/88; 185/89; 186/90; 187/91, all HB14/19/8.

<sup>78</sup>188/92; 189/93; 190/94; 191/95, all HB14/19/8.



166



165



164

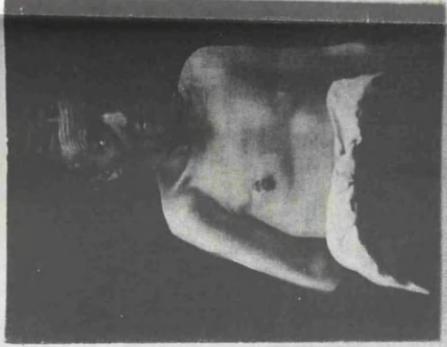


168

1



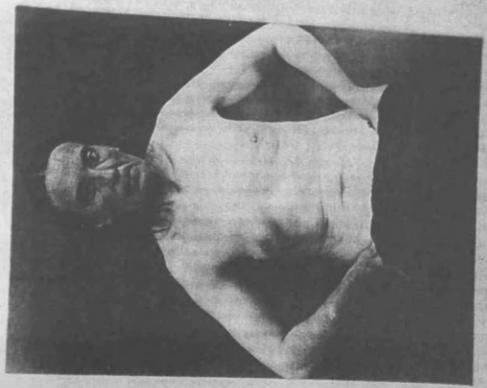
171



170



169

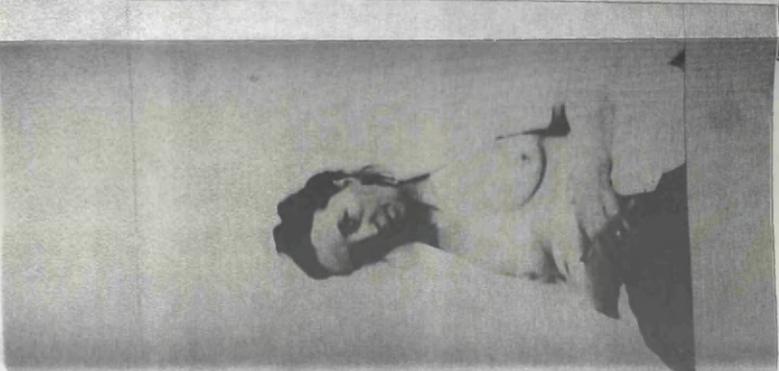




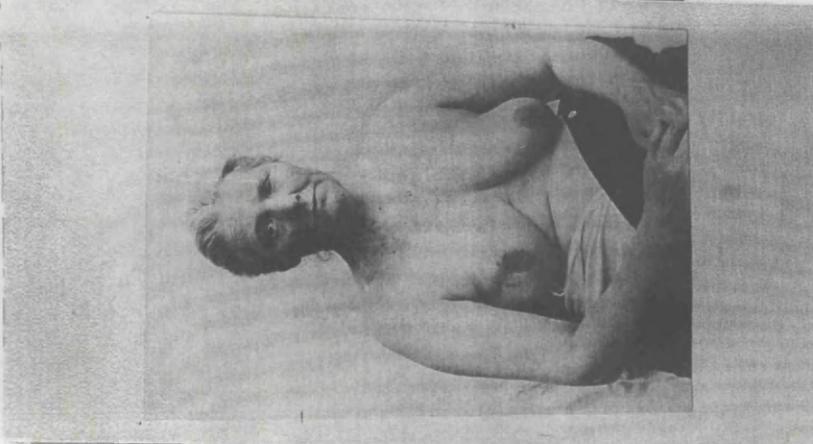
173



174

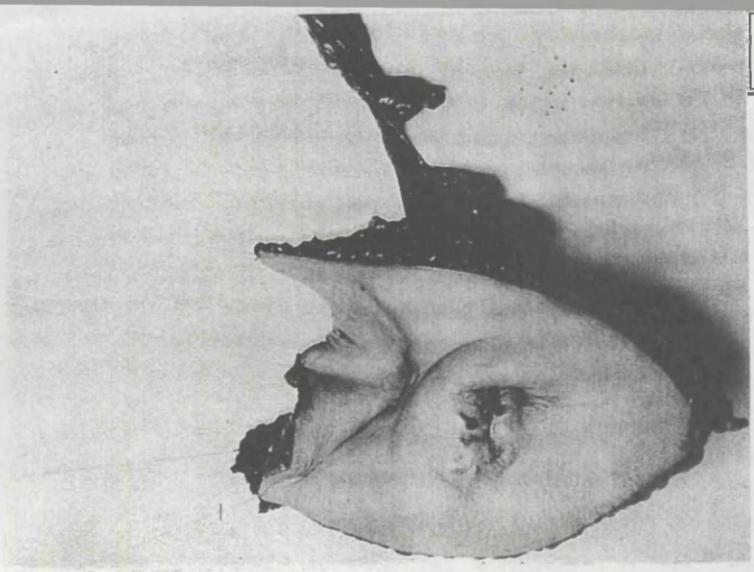


175



176

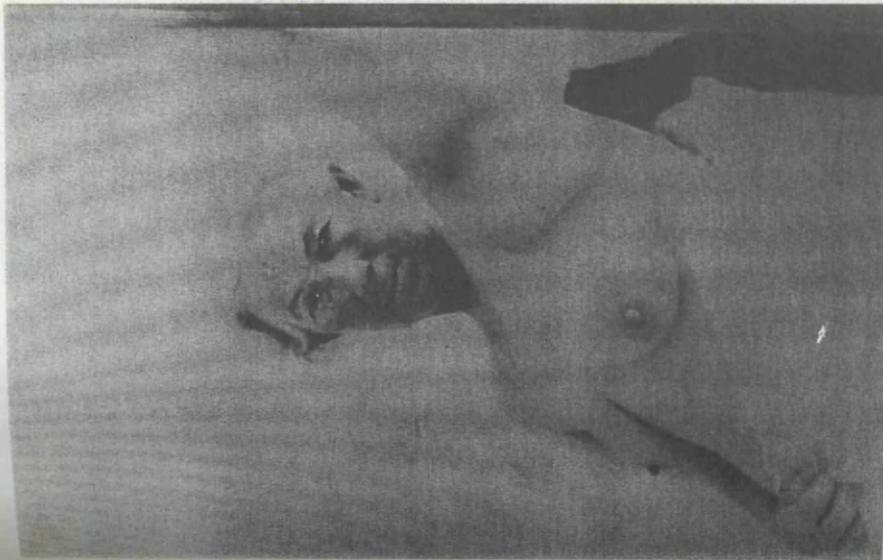
180

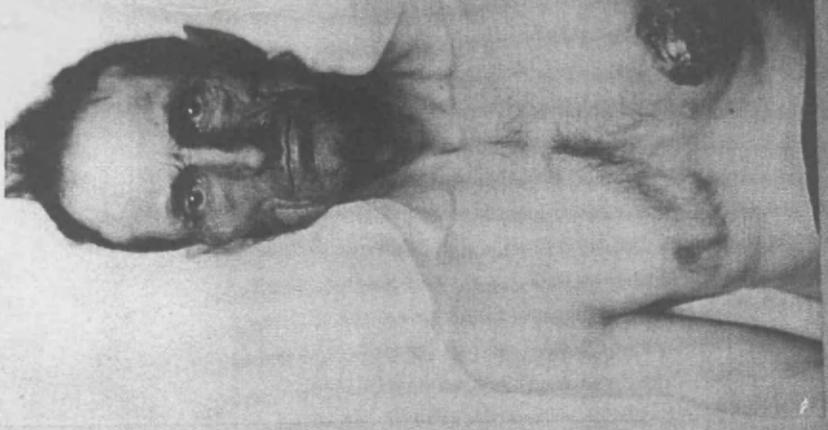


179



178



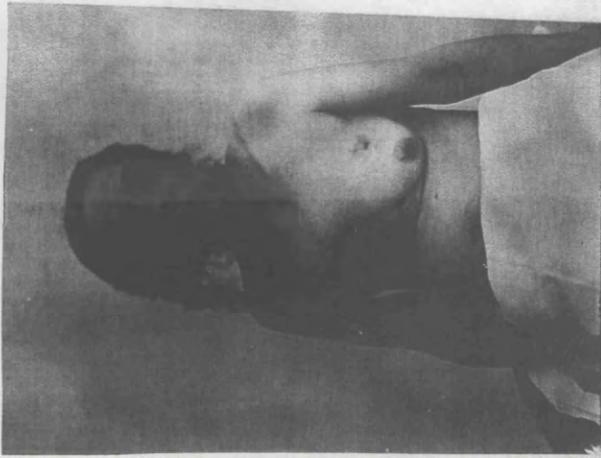


182



181

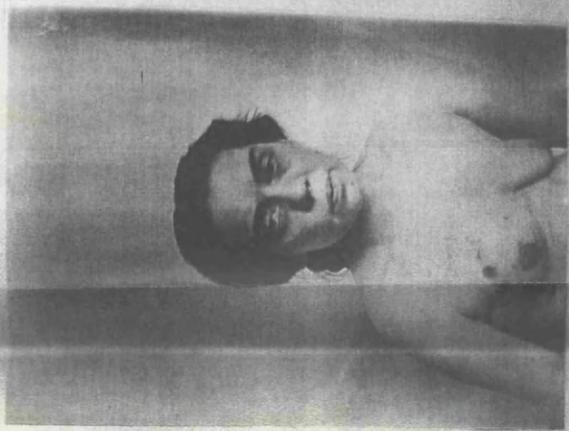




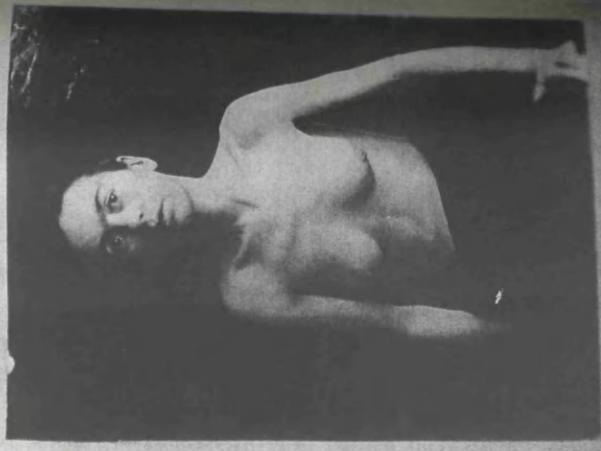
184



185



186





### 3. *Epithelioma*

I have identified a total of seventeen photographs of Epithelioma that were once part of the Tumour Demonstration. The prints are numbered from one hundred and nineteen to one hundred and forty three, but not consecutively. They date from 1902 to 1908 and are found within Files 18 and 21 of the GRI Collection of clinical photographs.<sup>79</sup>

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<sup>79</sup>[192:281] Epithelioma scrotum, 1902, HB14/19/21; [193:281] Gland mass cystic carcinoma, 1904, HB14/19/18.

*Tumant Demonstration 2*

As referred to earlier, the second demonstration is subdivided into thirteen categories.

1. *Gonae*

There is only one item remaining to be identified, which dates to 190...

2. *Papillae*

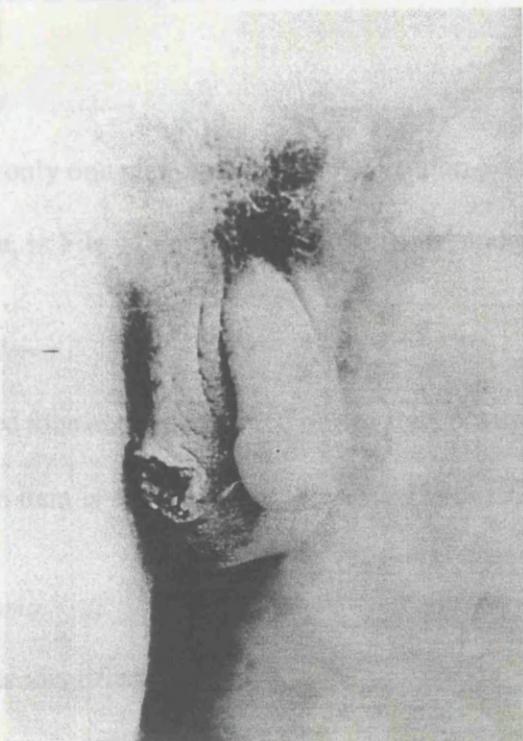
These are found consecutively and each date [190:287]

3. *Fibrous*

No items

4. *Molluscum Fibrosum*

I have identified fourteen items from this category, washed from Billy-Give to ninety-five, but not consecutively. All are located in File 56.<sup>82</sup> Many of these images relate to the case at the GRI, and one or two examples can be cross-referenced to [190:287]



192



193

<sup>82</sup>104/T1, HB14/19/71, 195/T1, 106/T3, 197/T4, HB14/1/88, 198/T2, 198/T54, 199/T56, 200/T10, 201/T6, 30/HE14/T9/57, n.d.

## *Tumour Demonstration 2*

As referred to earlier, the second demonstration is subdivided into thirteen categories.

### *1. Goitre*

There is only one photograph in the collection pertaining to Goitre, which is numbered as eleven, in File 71 entitled 'Miscellaneous' and dates to 1906.<sup>80</sup>[194:286]

### *2. Papilloma*

There are four items, numbered one to five, not consecutively. No date is available, and each item is now found in File 61.<sup>81</sup> [195-197:287]

### *3. Fibroma*

No items identified.

### *4. Molluscum Fibrosum*

I have identified fourteen items from this demonstration, numbered from fifty-five to ninety-five, but not consecutively. All are unnumbered, and are now located in File 56.<sup>82</sup> Many of these images relate to Macewen's work at the GRI, and one or two examples can be cross-referenced to his PJS. [198-201:288]

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<sup>80</sup>194/T11, HB14/19/71.

<sup>81</sup>195/T1; 196/T3; 197/T4, HB14/19/61, no date.

<sup>82</sup>198/T54; 199/T56; 200/T90; 201/T95, all HB14/19/57, n.d.

*5. Keloid (after Burn)*

I have identified one example of Keloid in the collection. The item is numbered twenty-one, and dates to 1902. In the collection it is now in File 71.<sup>83</sup> [202:289]

*6. Lipoma*

There are six items in the collection that relate to Lipoma. These are numbered from twenty-five to one hundred and forty five, all now in File 45 in the collection.<sup>84</sup> [203-204:290]

*7. Neuroma*

No items identified.

*8. Exostosis*

Nine photographs relating to Exostosis are found within File 47.<sup>85</sup> They are numbered from thirty-eight to forty-nine and are without dates.[205:291]

*9. Echondroma*

No items identified.

*10. Lymph Adenoma*

There are nine photographs of Lymph Adenoma. They are numbered from seventy-one to seventy seven, but two items are numbered as seventy-four. Eight of the prints

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<sup>83</sup>206/T21; HB14/19/71.

date to 1897, the remaining one to 1911. All of these photographs can now be found in File 20.<sup>86</sup> [206-209:292]

### *11. Tuberculous Glands*

Ten items of Tuberculous Glands are now located in File 23 in the Collection. One item is unnumbered, the others are numbered from sixty to seventy, but not consecutively, and date from 1901 to 1904.

### *12. Angioma*

There are five items from this section of the demonstration. They are numbered but not consecutively from fifty-two to fifty-eight. All are now found in File 40 and date from 1897 to 1903.<sup>87</sup>

### *13. Rodent ulcer*

Three items survive relating to Rodent ulcer. One item is unnumbered, the others are labelled as one hundred and fifteen and one hundred and seventeen. Two items date from 1903, the other to 1907. The three prints are now in File 61.<sup>88</sup> [210:293]

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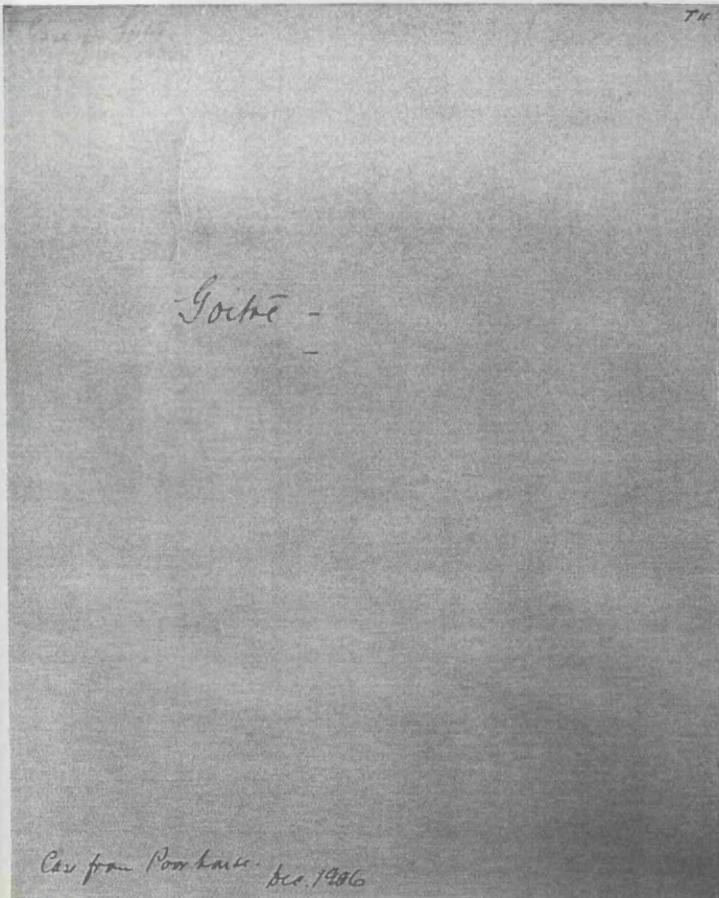
<sup>84</sup>207/T30; 208/T31, HB14/19/54, entitled 'Lipoma Aborescences, Knee', n.d.

<sup>85</sup>209/T42, 1895, HB14/19/47, 'Tumour Exostosis Humerus'.

<sup>86</sup>202/T71; 203/T72; 204/T74; 205/T75, all HB14/19/21, dated 1897 and 1911.

<sup>87</sup>HB14/19/40.

<sup>88</sup>210/T117; HB14/19/61, dated 1903.



194



195

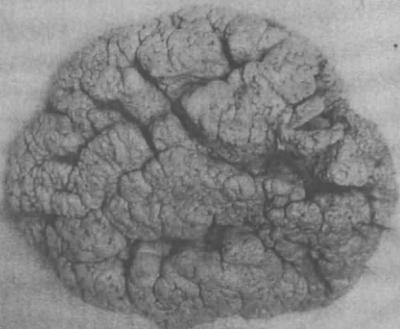
See 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

*Handwritten signature*

Diagnosis: Congenital eye of husband at birth very strongly  
 increased till 29 years of age of husband increased  
 more rapidly. Husband showing from south of pedicle  
 depending the eye of the wife was opened in 1897



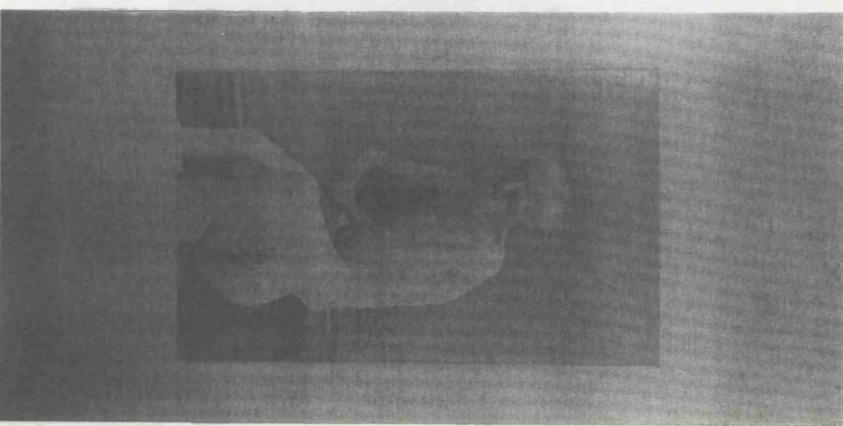
196



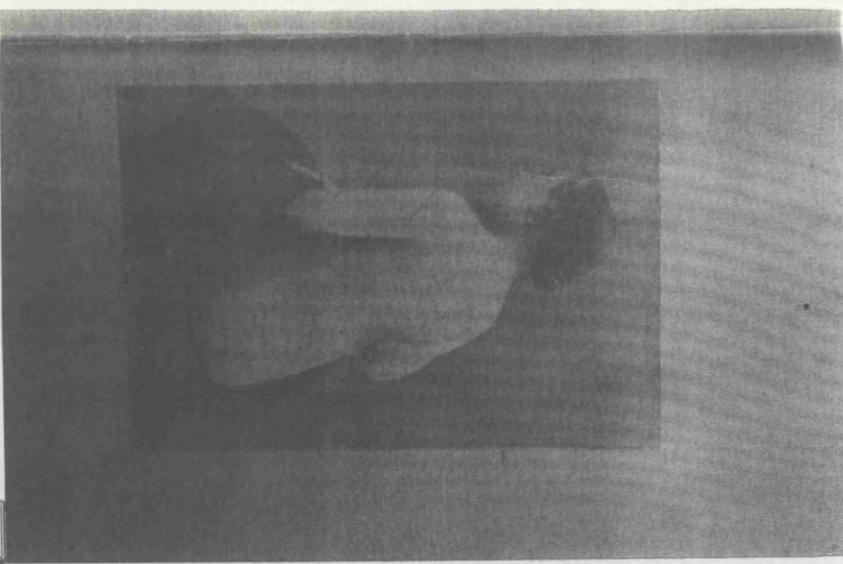
197



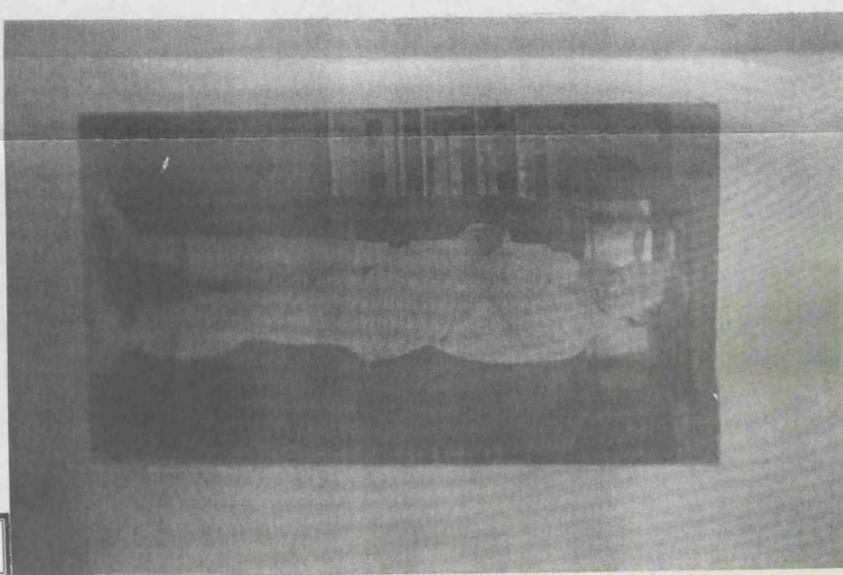
198



199



200

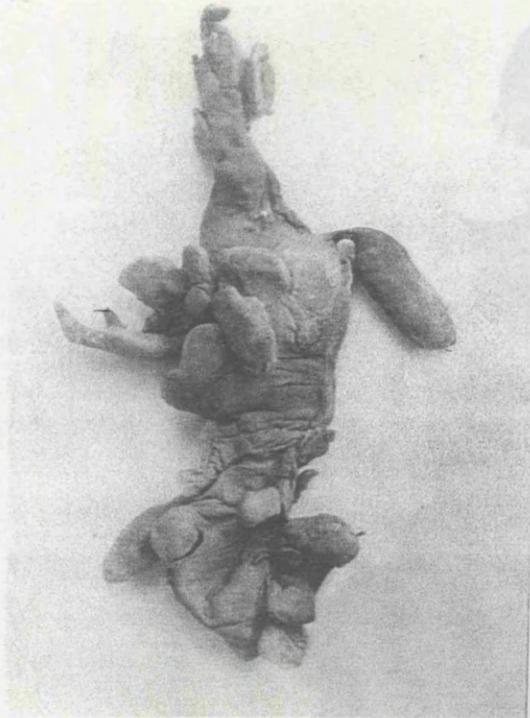


201

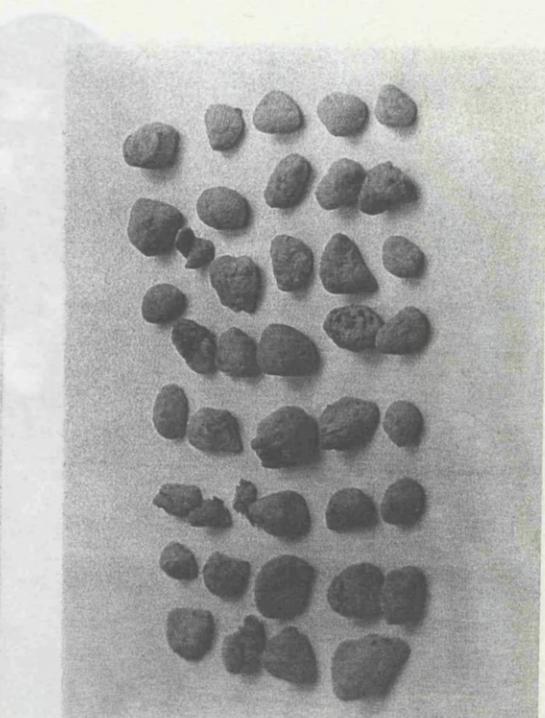


202

204



203

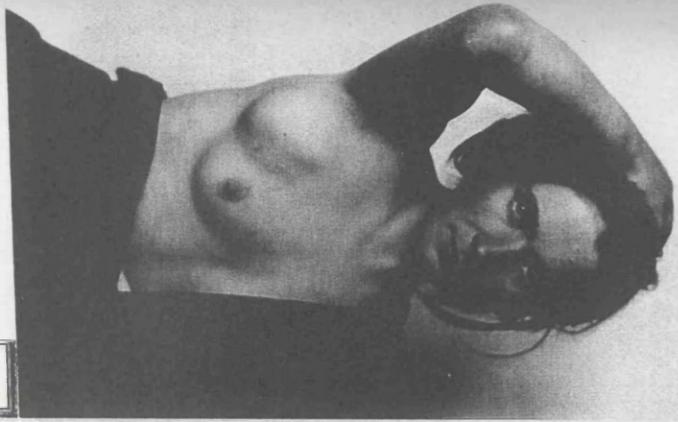


205

204



205



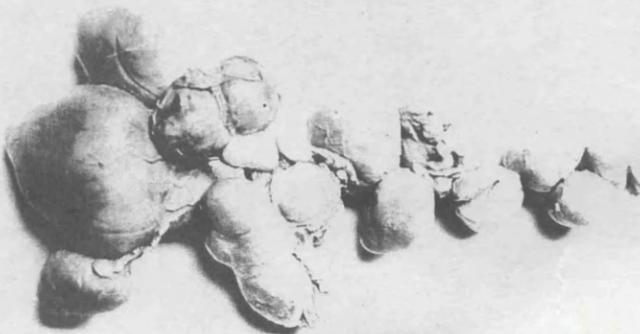
206



207



208

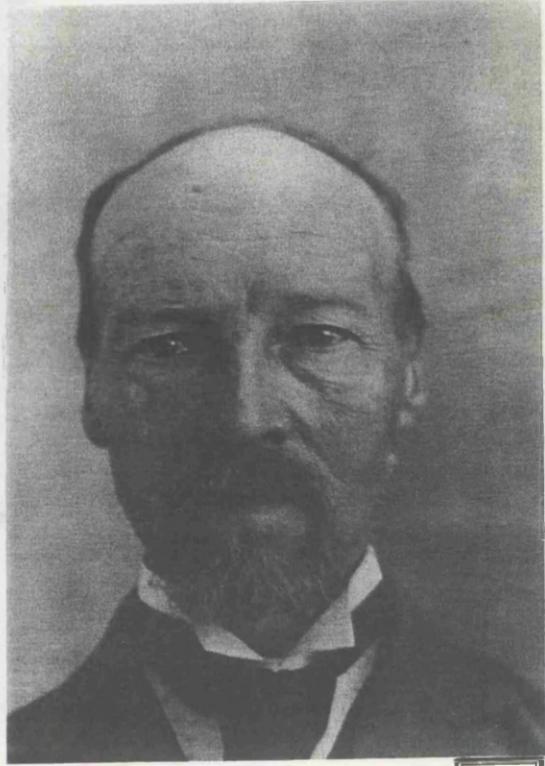
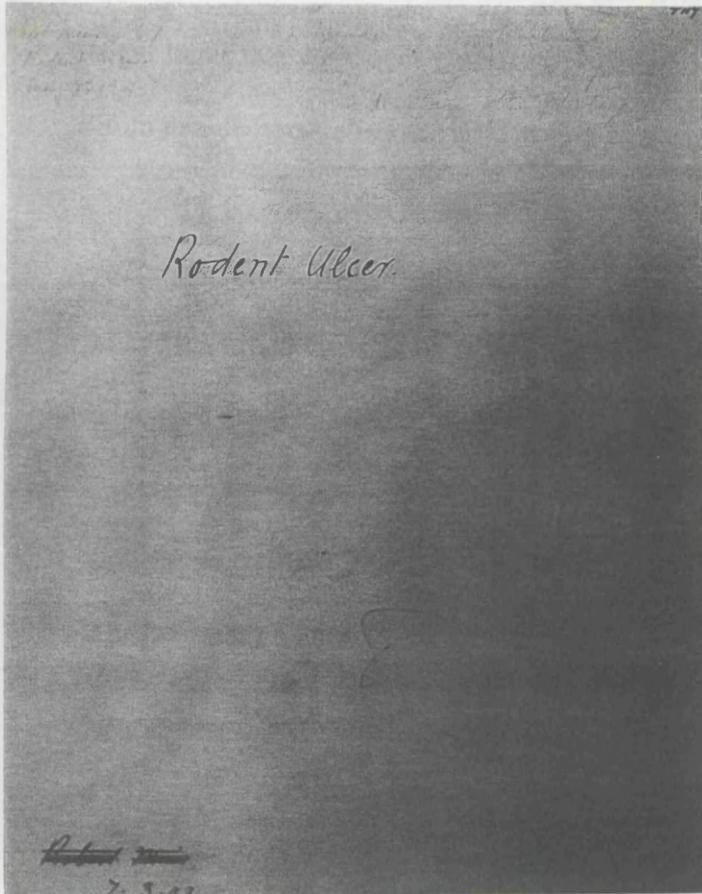


209

*Hernia Demonstration 1*

1875-1876

The Hernia Demonstration is divided into fifteen categories. I have identified forty-  
The majority of the photographs



210

*Hernia Spermatocele*

No Hama identified

<sup>1</sup>GHIBA, NB14/1935, 4th page [297-298]

<sup>2</sup>Ibid

<sup>3</sup>Ibid

## *Hernia Demonstration 1*

The Hernia Demonstration is divided into fifteen categories. I have identified forty-eight items that were once part of this demonstration. The majority of the photographs from this demonstration are now in File 35 in the CC.<sup>89</sup>

### *1. Hernia Undescended Testicle*

I have identified three items, numbered eighty-five through to eighty-seven, two of which are dated to 1897 and 1900.<sup>90</sup>

### *2. Hernia Lipoma of Cord*

The two items date to 1903, and are numbered eighty and eighty-three.<sup>91</sup>

### *3. Hernia Variocoele*

Two of the three identified items date to 1913, and are numbered seventy-five, seventy-seven and seventy-eight.<sup>92</sup>

### *4. Hernia Spermatocele*

No items identified.

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<sup>89</sup>GGHBA, HB14/19/35, see pages [297-298].

<sup>90</sup>Ibid.

<sup>91</sup>Ibid.

5. *Hernia Hydrocele of Cord*

One item identified, and is numbered sixty-two, and is undated.<sup>93</sup> [211:299]

6. *Hernia Haematoma Vulvae*

Both items date to 1909, and are numbered thirty-nine and forty.<sup>94</sup>

7. *Hernia Bilocular Hydrocele*

Two items identified, numbered sixty-three and sixty-five, undated. These are now located in File 33.<sup>95</sup>

8. *Hernia Hydrocele*

No items identified.

9. *Hernia Extravasation of Urine*

Four items, numbered from thirty-five to thirty-eight, two date to 1897, the others to 1909. All are located in File 34.<sup>96</sup> [212-213:300]

10. *Hernia Inguinal Scrotal*

Four items have been identified, numbered four, ten, thirty-three and one hundred and seventy-three. Two items date to 1893, one to 1897, the other to 1898.<sup>97</sup> [214-

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<sup>92</sup>Ibid.

<sup>93</sup>Ibid.

<sup>94</sup>Ibid.

<sup>95</sup>GGHBA, HB14/19/33.

<sup>96</sup>212/H36; 213/H37, HB14/19/34, 1897.

<sup>97</sup>214/H172; 215/H173, HB14/19/28.

215:300]

*11. Hernia Inguinal Labial*

No items identified.

*12. Hernia Inguinal*

I have identified twenty items, one is without a number. The others are numbered from one to one hundred and forty-one, but not consecutively. The earliest item dates to 1897, the others from 1902 to 1908. These items are now roughly divided between File 28 and File 30.<sup>98</sup>

*13. Hernia Congenital*

No items identified.

*14. Hernia Surgical Emphysema*

No items identified.

*15. Hernia Fibrocellar Tumour*

No items identified.

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<sup>98</sup>GGHBA, Ref. HB14/19/28, HB14/19/30.

**HB14/19/35**

"

"

"

**HB14/19/33**

**HB14/19/35**

**HB14/19/33**

"

**HB14/19/34**

**HB14/19/28**

**HB14/19/29**

**HB14/19/30**

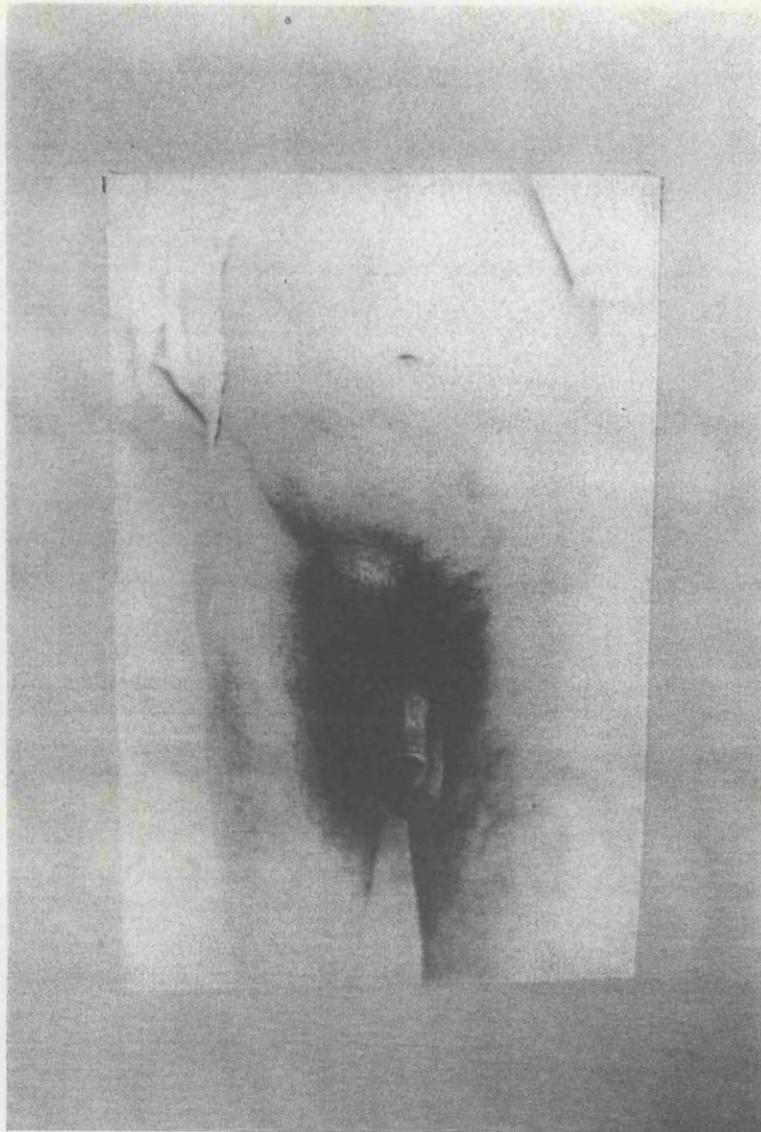
**HB14/19/35**

Hernia      Demonstration

(1.)

1. Hernia      Undescended Testicle
  2.      "      Lipoma of Cord
  3.      "      Varicocele
  4.      "      Spermatocele
  5.      "      Hydrocele of Cord.
  6.      "      Haematoma Vulvae
  7.      "      Bilocular Hydrocele
  8.      "      Hydrocele
  9.      "      Extravasation of Urine
  10.      "      Inguinal Scrotal
  11.      "      "      Labial double.
  12.      "      Inguinal
  13.      "      Congenital
  14.      "      Surgical Cryptorchidism.
  15.      "      Fibrous Tumour
- 
- 

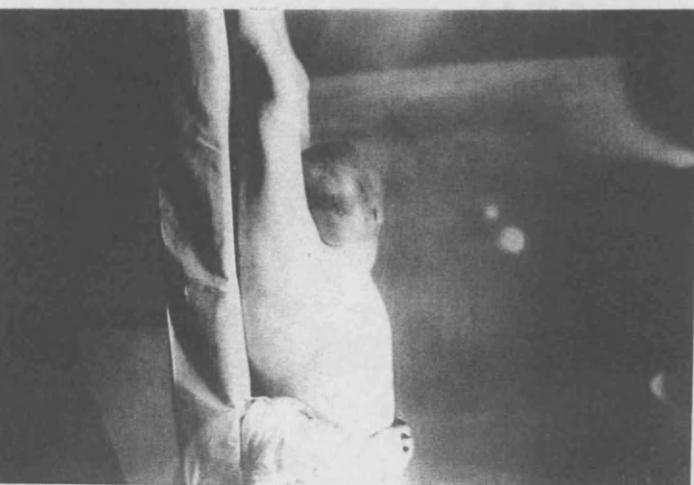
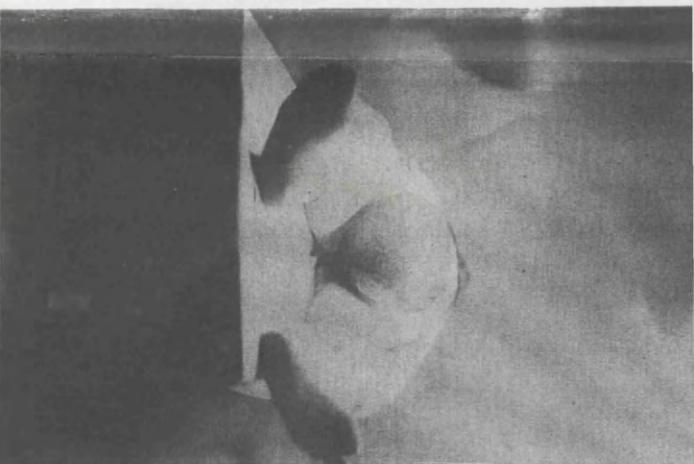
211



211



213



214

215

49

Protrusion of Lower Abdomen

Suppurative & Gangrenous

Extravasation of Urine

42/21

0.5.11

213

214

215

137

Hernia

Inguinal

[Scrotal].

Strangulated and Gangrenous.

Right side of scrotum enormously distended, of tissues intensely inflamed and suppurating the spermatic process extending over lower third of abdomen.

Patient in abdomen on a division.

Photo taken by electric light [inverted].

42/114

3 0 0

137

## *Deformity Demonstration 1*

The Deformity Demonstration is divided into two parts, the first is subdivided into eight categories, the second into seven.<sup>99</sup>

### *1. Brachial Fistula*

No items identified.

### *2. Meningocele*

Three items have been identified, of these dates from 1897, 1898 and 1906. Only one the latter item has a number, which is thirty-four. All these items are now located in File 55.<sup>100</sup>

### *3. Hare Lip and Cleft Palate*

I have identified nine items from this part of the demonstration. Two items are unnumbered, the remainder are numbered from twelve to nineteen but not consecutively, and date from 1894 to 1907. All of the items are now found in File 49.<sup>101</sup>

### *4. Hydrocephalis*

I have identified eleven items from this demonstration, only four of these are dated, and all to 1897. Not all the items are numbered, but those run from twenty-one to

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<sup>99</sup>See pages 304-305.

<sup>100</sup>HB14/19/55.

forty-three but not consecutively. All of the items are now located in File 52.<sup>102</sup> [216-220:306]

#### *5. Spina Bifida*

I have identified ten items relating to Spina Bifida. One item is unnumbered, the others are numbered from thirty-nine to forty-six but not consecutively. Only one item is dated, and that is to 1899. All items are now located in File 67.<sup>103</sup> [221-223:307; 224-227:308]

#### *6. Torticollis*

I have identified seven items, two of which dated to 1910, the others are without a date. Four of the items are numbered from fifty to fifty-three. All nine items are now located in File 57.<sup>104</sup>

#### *7. Scoliosis*

I have identified six items that date from 1902 to 1908. Five of the items are numbered from fifty-six to sixty-two, four prints date to 1902, and the remainder to 1908. All items are now located in File 66.<sup>105</sup>

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<sup>101</sup>HB14/19/49.

<sup>102</sup>216/D21; 217/D22; 218/D23; 219/D25; 220/D28, all HB14/19/52.

<sup>103</sup>221/D39; 222/D41; 223/D42; 224/D43; 225/D44; 226/D45; 227/D46, all HB14/19/67.

<sup>104</sup>HB14/19/57.

8. *Kyphosis, Angular Curve, Lordosis, Pott's Disease*

*Kyphosis*

I have identified one item, numbered sixty-five and undated. Now located in File 53.<sup>106</sup>

*Angular Curve*

I have identified five items, three of which are numbered from sixty-six to sixty-eight. One item is undated, two date to 1896, one to 1902, the other to 1903. All items are now located in File 53.<sup>107</sup> [228-230:309]

*Lordosis*

I have identified one item, undated and labelled seventy-four, also located in File 53.<sup>108</sup> [231:310]

*Pott's Disease*

I have identified two items. One is numbered sixty-nine and dates to 1905, the other is without a number and dates to 1902. Both items are now in File 53.<sup>109</sup>

<sup>105</sup>HB14/19/66.

<sup>106</sup>HB14/19/53.

<sup>107</sup>228/D66; 229/D67; 230/D68, all HB14/19/53.

<sup>108</sup>231/D74, HB14/19/53.

<sup>109</sup>Ibid.

**HB14/19/71**

**HB14/19/55**

**HB14/19/49**

**HB14/19/52**

**HB14/19/67**

**HB14/19/57**

**HB14/19/66**

**HB14/19/53**

"

"

"

**HB14/19/71**

**HB14/19/46**

**HB14/19/69**

**HB14/19/45**

**HB14/19/64**

**HB14/19/64**

**HB14/19/71**

Deformity Demonstration (1.)

1. Brachial Fistula
2. Umbigocele
3. Hare lip and cleft palate
4. Hydrocephalus
5. Spina Bifida
6. Torticollis
7. Scoliosis
8. Kyphosis  
Angular Curve  
- Lordosis  
Pott's Disease

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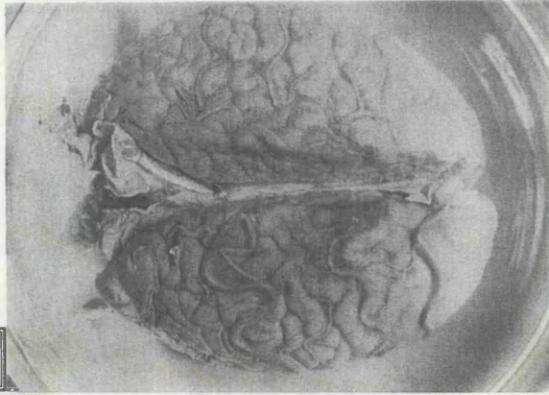
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Deformity Demonstration (2.)

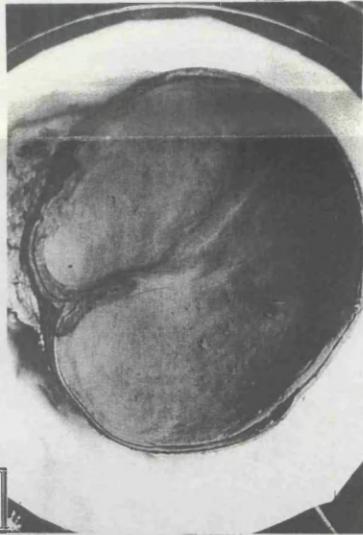
1. Hemiplegia
2. Deformities of upper extremities
3. Talipes Flat Foot
4. Deformities of Toes
5. Tibial curves      Lickert's
6. Genu Valgum and Varum
7. Achondroplasia etc.



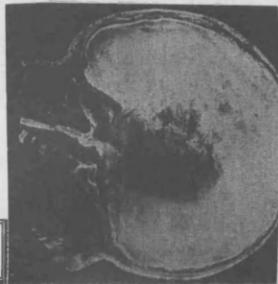
216



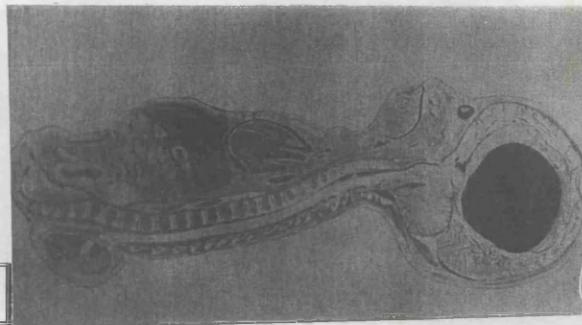
217



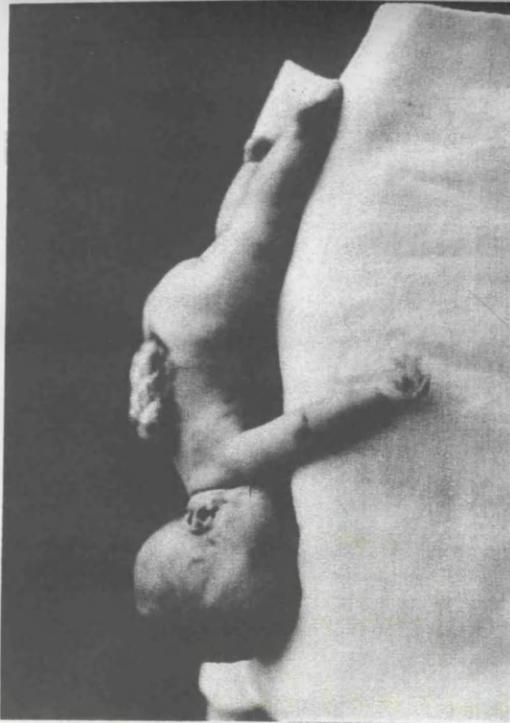
218



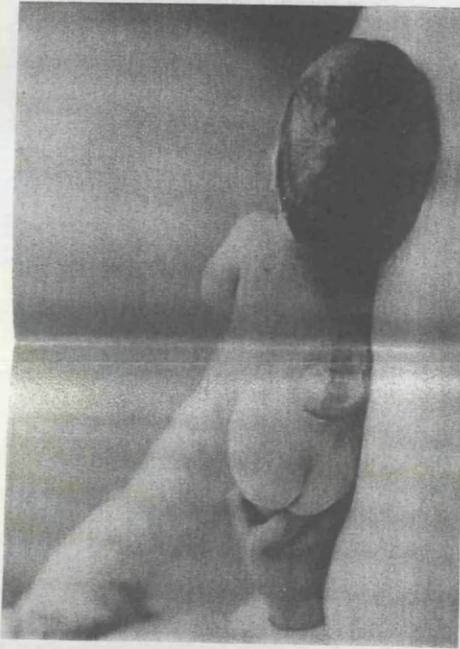
219



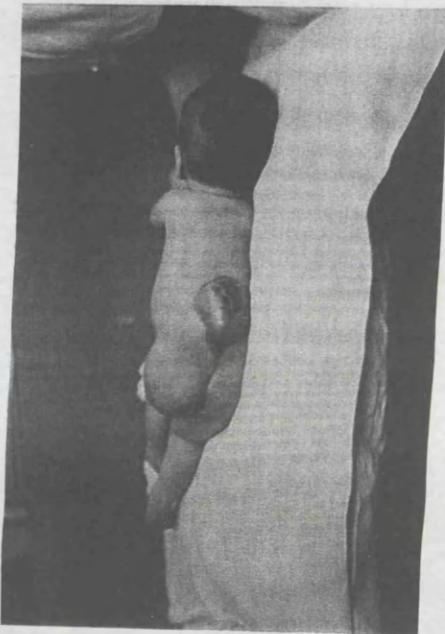
220



223



222



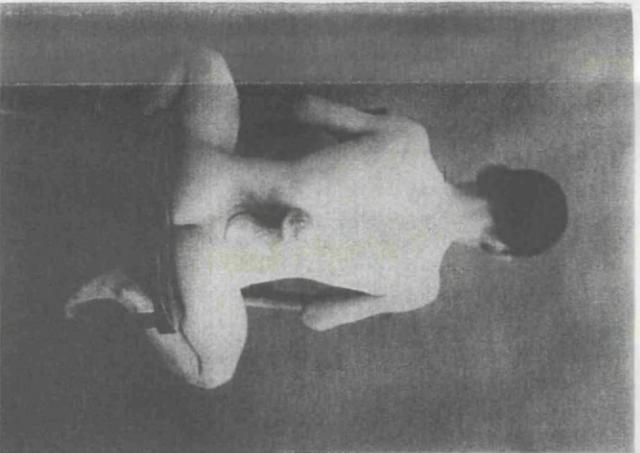
221



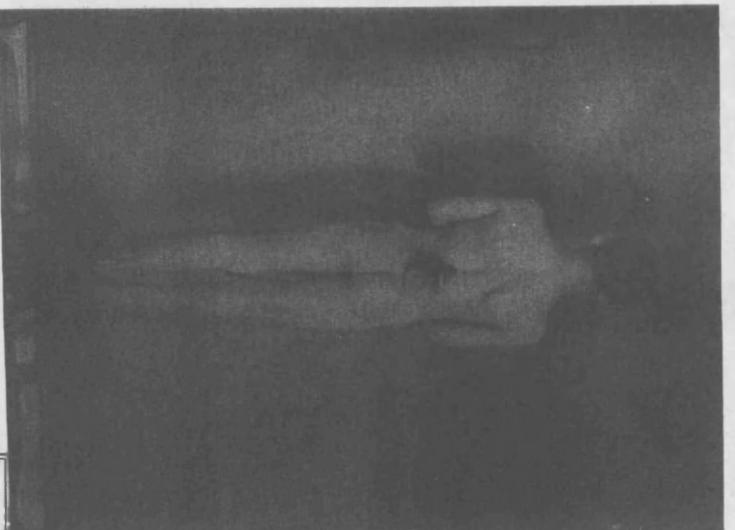
224



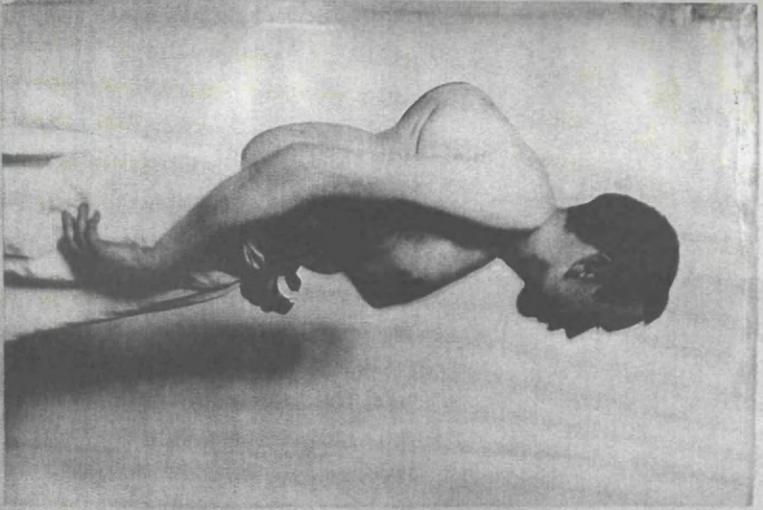
225



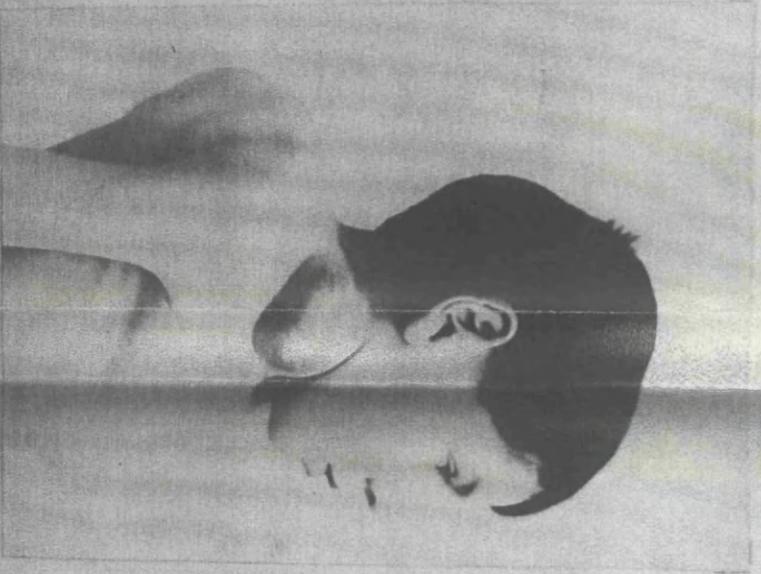
226



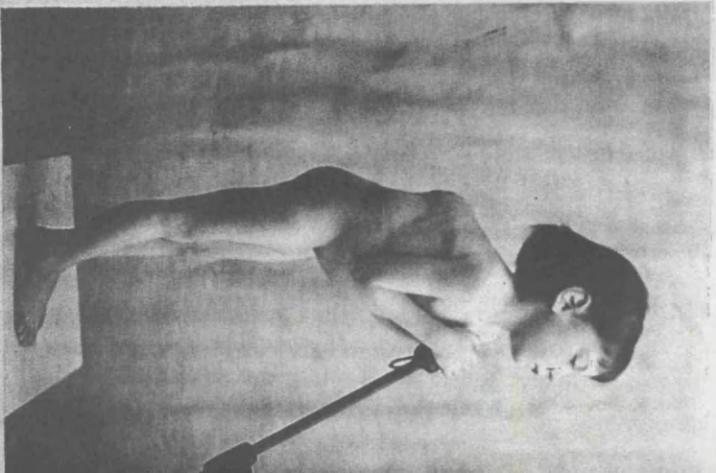
227



228



229





## *Deformity Demonstration 2*

The second part of the Deformity Demonstration is subdivided into seven categories.

### *1. Hermaphrodite*

I have identified two items, numbered seventy-eight and seventy-nine, to 1900 and found in File 71.<sup>110</sup>[232-233:313]

### *2. Deformities of Upper Extremities*

I have identified seven items, eight of which are numbered, but not consecutively from eighty-seven to ninety-seven. These items range in date from 1902 to 1908, and all are now found in File 46.<sup>111</sup> [234-235:314; 236:315]

### *3. Talipes Flat Foot*

Nine items have been identified, these are numbered consecutively from ninety-eight to one hundred and five. Only three of the nine items are dated from 1903, 1906 to 1907. See File 69.<sup>112</sup> [237-240:316; 241-243:317]

### *4. Deformities of Toes*

I have identified nine items, eight of which are numbered from forty-seven to one hundred and twenty. Only two items are dated, from 1897 and 1906. All are now

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<sup>110</sup>232/D78; 233/D79; all HB14/19/71.

<sup>111</sup>234/D96; 235/D97; Conical stump, 1902; 236/D98, 1902, HB14/19/46.

<sup>112</sup>237/D98; 238/D99; 239/D100; 240/D101; 241/D102; 242/D103; 243/D104, all HB14/19/69.

located in File 45.<sup>113</sup>

#### 5. *Tibial Curves Rickets*

I have identified nine items from the Tibial Curves Demonstration, only three of which are numbered as follows: one hundred and twenty-four, one hundred and twenty-six, and one hundred and thirty-seven, see File 45.<sup>114</sup>[246-247:319]

#### 6. *Genu Valgum and Varum*

I have identified ten items, eight of which are numbered from one hundred and ten to one hundred and forty, but not consecutively. Only three of the items are dated, the earliest to 1899, the others to 1902 and 1905. All items are now located in File 64.<sup>115</sup>

[244-245:318]

#### 7. *Achondroplasia Etc.*

Two items identified, now located in File 71.<sup>116</sup>[248-249:320]

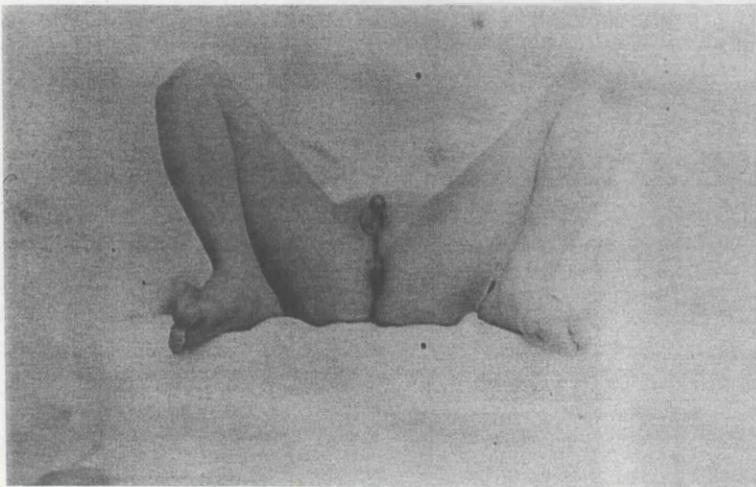
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<sup>113</sup>HB14/19/45.

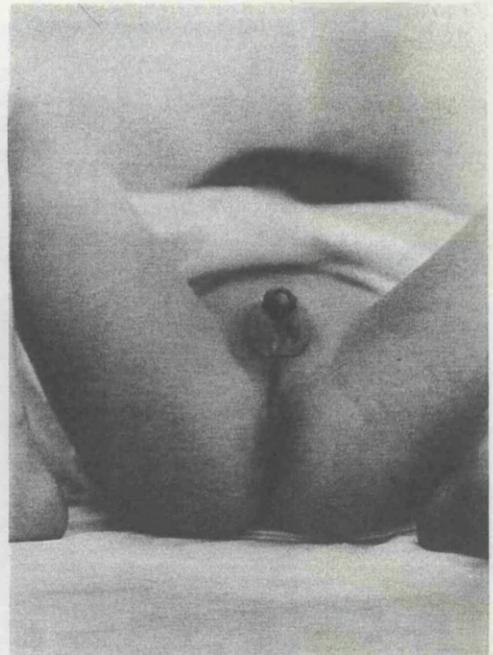
<sup>114</sup>246/D124; 247/D126, HB14/19/45.

<sup>115</sup>244/D110; 245/D111, HB14/19/64.

<sup>116</sup>248/D78; 249/D79, HB14/19/71.



232



233

234

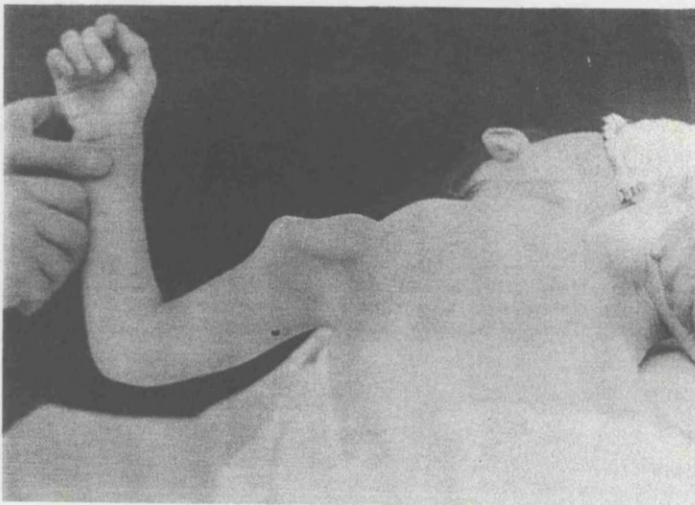
235



234



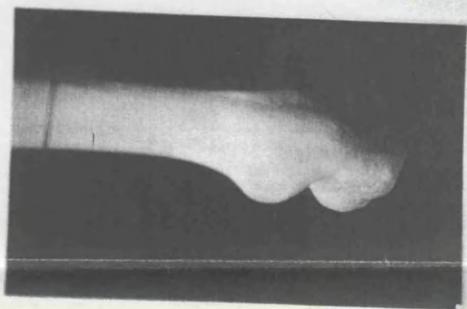
235



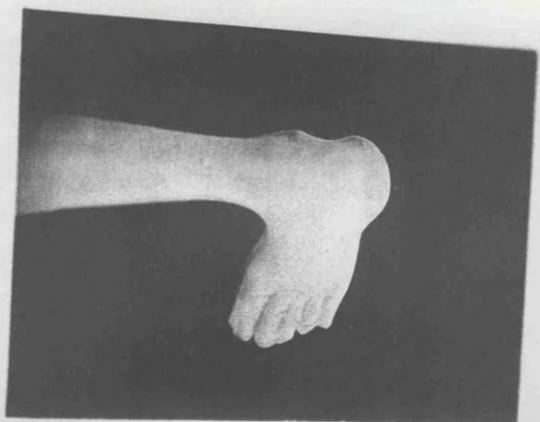
236



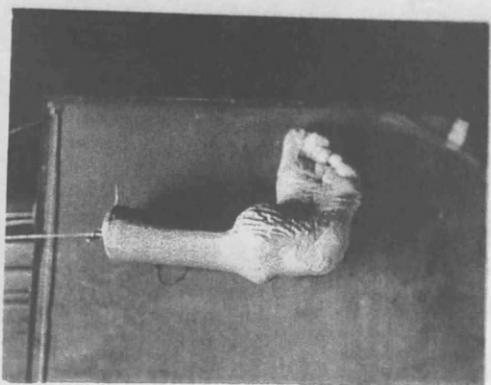
232



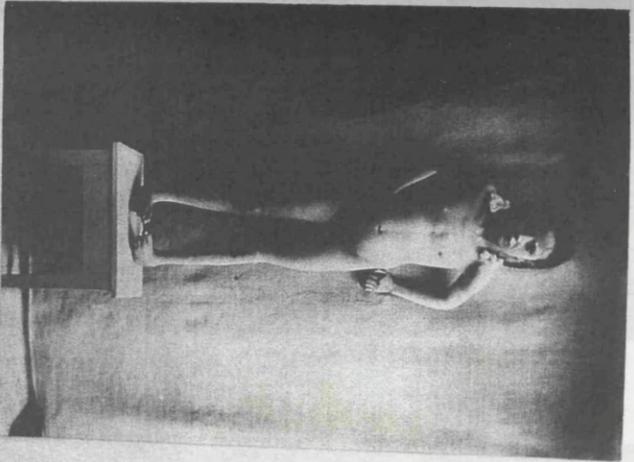
239



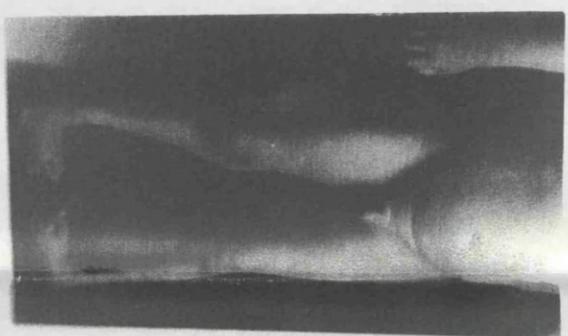
238



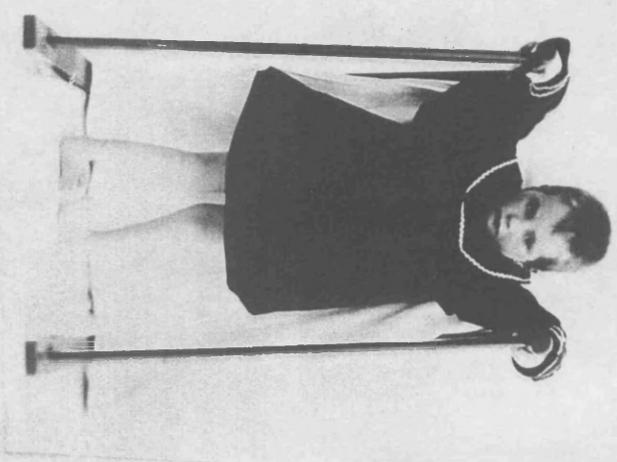
237



241



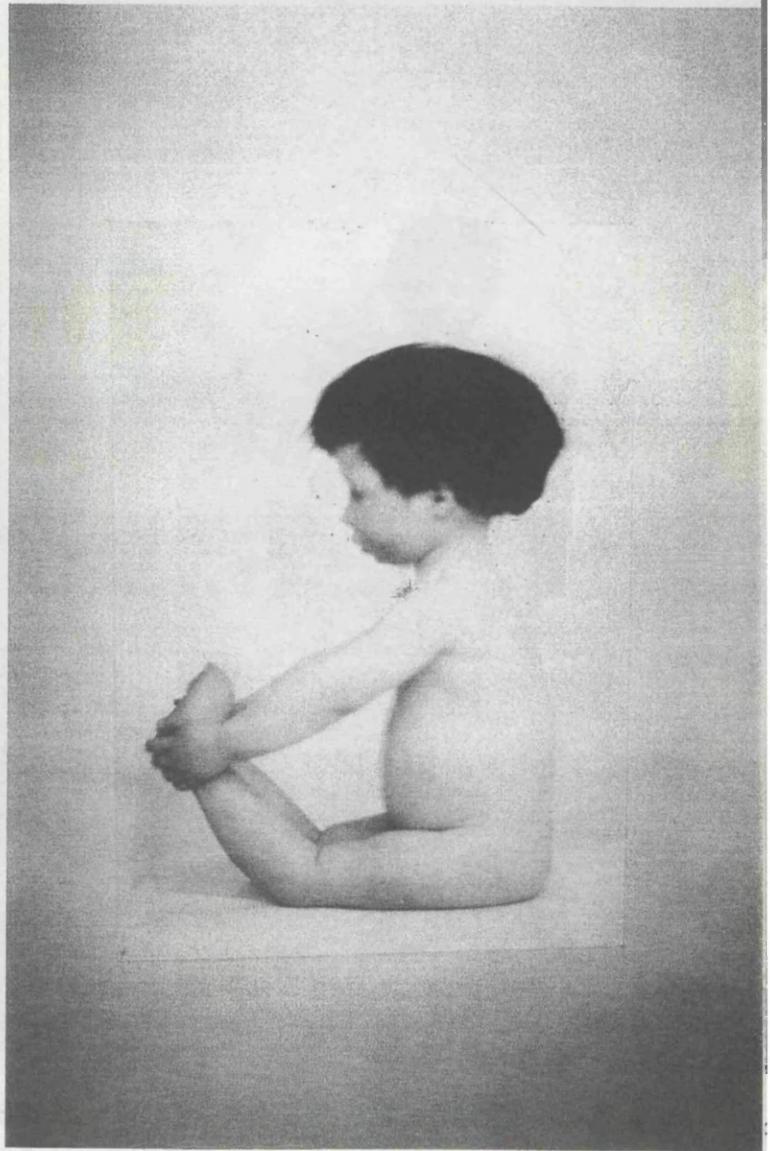
242



243



244



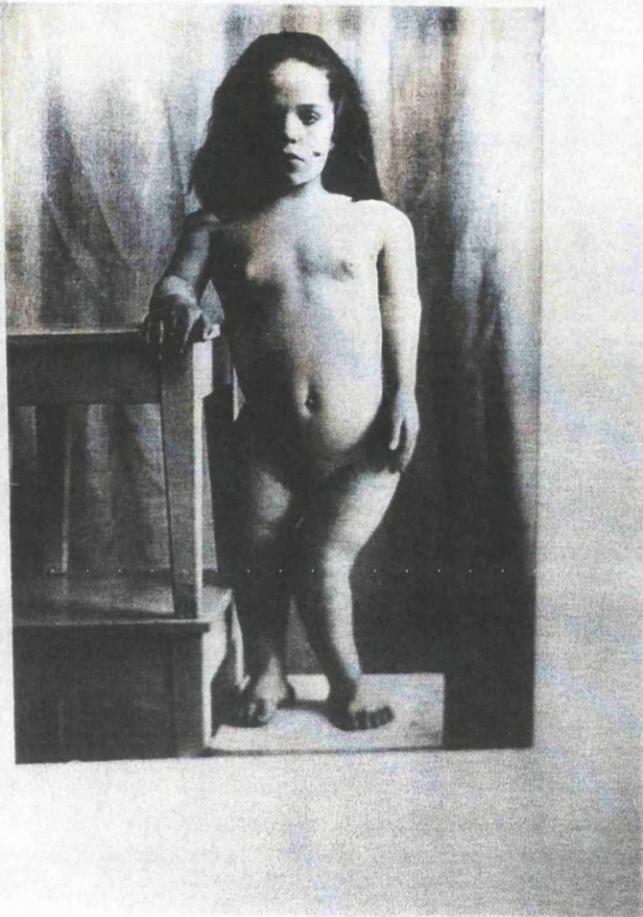
245



246



247



248



249

### **Chapter Six, Section III: Contributors & Inheritors of Macewen's Collection of Clinical Photographs**

This part of the chapter examines the work of others who contributed to Macewen's collection of clinical photographs (CC). As the collection developed over a period of thirty years or so, a number of individuals were involved in taking photographs, writing case notes, and making drawings and paintings. Some of the most significant contributions were made by Dr Jack Macewen, Dr Alexander Patterson, Dr James Hogarth Pringle and the medical illustrator, A.K. Maxwell.

#### ***Dr John A.C. Macewen***

John Allan Craigie Macewen (1874-1944), later known as 'Jack', was born in Glasgow in 1874, the first son of William Macewen. Jack Macewen followed in his father's footsteps. According to his obituarist, Jack Macewen had 'worthily upheld the surgical tradition' in Glasgow.<sup>117</sup> Using previously unexplored sources generated by Jack Macewen, I will argue that he made both significant and original contribution to his father's collection of photographs.

There is little information regarding Jack Macewen's early formal education, some of which he may have received at home from a governess. Perhaps his first

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<sup>117</sup>'Obituary, John A.C. Macewen', (1944) *The Lancet*, I: 136.

encounter with photography occurred during the late 1870s, when he posed for a studio portrait which was inserted into the Macewen family album.<sup>118</sup>

As a child Jack Macewen took a photograph of his mother, three sisters, and two brothers in the dining room of the family home in 3 Woodside Crescent, Charing Cross, Glasgow.<sup>119</sup> The inscription written on the verso provides the names of the sitters and a note which reads 'photo taken by Jack'. His father is notably absent from the image, perhaps he was not there or because he did not want to be photographed. William Macewen's apparent dislike of being photographed is well documented.<sup>120</sup>

At the age of nineteen, Jack Macewen enrolled on the Anatomy B.Sc. at the University of Glasgow in 1891. He stated that:

I well remember my first morning as a student in a surgical ward. It belonged to Dr George Buchanan, of the velvet trousers ... my naivety also led to my being called out within a day or so of my arrival, to assist at an operation on glands of the neck, which were very frequent in those days. 'Wee George' made a long incision and things got very bloody, and then he ran his finger along the glands, and announced that they were far too matted and disintegrated for removal, and so we stitched up, and I was not sorry. Another of my early recollections was of 'Wee George' (so called to distinguish him from Big George Macleod) behind a screen, trying to pass an instrument through a stricture, with a writhing patient and a blood soaked bed. Some of these old surgeons with their knives, and blood stained frock coats were pretty terrible, but I did enjoy the face of 'Wee George' being persuaded to don a white coat by some of his progressive assistants.<sup>121</sup>

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<sup>118</sup>This album belongs to Allan McDonald, the great, great grandson of Sir William Macewen.

<sup>119</sup>DC79/175, probably taken circa 1880-1885.

<sup>120</sup>This is a recurrent theme in his obituaries, see, 'Obituary, Sir William Macewen, CB, MD, FRCS', *British Medical Journal*, (1924) I: 603-608; 'Obituary, Sir William Macewen', *Glasgow Medical Journal*, (1924) 101: 217-237.

<sup>121</sup>DC79/143, pages unnumbered.

This account of Dr George Buchanan's activities is more reminiscent of heroic surgery and thus conflicts with the 'accepted' portrait that shows him to be a progressive surgeon engaged in scientific practices.<sup>122</sup>

Jack Macewen also attended Dr Joseph Coats's class in Pathology at the University of Glasgow. However:

It was not long before the other students had drawn my attention to the wicked libel on my father, contained in his textbook. Speaking of frost bite, he said it had been observed in this country in drunkards who had lain exposed (Macewen and others) - one of those things, as *Punch* would have remarked, which might have been expressed differently.<sup>123</sup>

In 1896, while in the latter stages of his M.B., C.M., Jack Macewen began assisting his father in the upkeep of his collection of clinical photographs.<sup>124</sup> As noted in the previous chapter, the first explicit reference to his role in the 'continuation' of the collection appears in the Preface of his book, *Fractures, Compound Fractures, Dislocations*, published in 1919.<sup>125</sup>

One of Jack Macewen's duties was to write brief patient case notes on the verso of the boards on which the print had been mounted. Once completed, the item was then placed in the relevant part of the collection, according to subject matter. Fortunately, Jack Macewen had a distinctive style of handwriting. By searching through his manuscripts and correspondence, I have been able to observe that his 'hand' remained fairly consistent throughout most of his adult life. Seeing Jack

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<sup>122</sup>Jacyna, L.S. (1988) 'The Laboratory and the Clinic: The Impact of Pathology on Surgical Diagnosis in the Glasgow Western Infirmary, 1875-1910', *Bulletin of the History of Medicine*, **62**: 384-406.

<sup>123</sup>DC79/43. Pages unnumbered.

<sup>124</sup>Towards the end of 1897 Jack Macewen graduated with honours, receiving a Bachelor's Degree of Medicine and Master of Surgery.

<sup>125</sup>Macewen, J.A.C. (1919) *Fractures, Compound Fractures, Dislocations and Their Treatment: With a Section on Amputations and Artificial Limbs* (Glasgow: Maclehose, Jackson).

Macewen's writing in a variety of sources had enabled me to identify his case notes in the collection with a fair degree of confidence.<sup>126</sup>

Identifying Jack Macewen's photographs in the collection is problematic. As we have already seen, Jack himself explicitly referred to his continuation of the collection, it could be argued that, in this instance, the presence of his handwriting amongst the case notes may also signify that he was the photographer. It may be possible to identify Jack Macewen's 'style' of photography. His first case notes appear in the collection from June, 1896, and continue up until the middle of the following year.<sup>127</sup>

From the six examples identified, taken from 1896 to 1897, one can see a variety of shots. They include portraits and tightly cropped images, as well as images of specimens pinned for display in front of the camera lens. [250-251:325] Jack evidently had some artistic training, and there were artists in the family.<sup>128</sup> He reminisced that he had been:

Sent to the [Glasgow] School of Art, where I practised drawing under my aunt, Miss Allan. Her class was a sketching class, and there were a number of girls in it, all working up the paintings they had made, while I was tucked into a corner with my plaster cast to draw.<sup>129</sup>

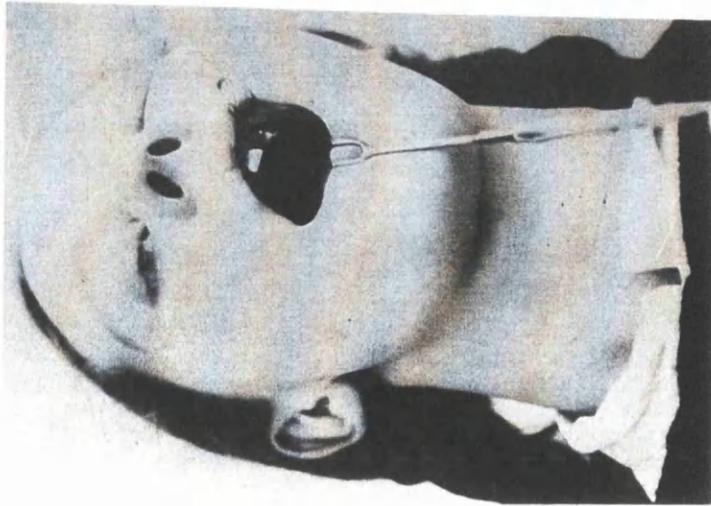
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<sup>126</sup>Many of Jack Macewen's letters are held in the GUABRC, Ref. DC79/14.

<sup>127</sup>I have identified 32 examples of Jack Macewen's case notes that appear on the verso of the boards on which the photographs in the collection are mounted. His contributions date from 1896-1904. However, I feel his contribution may have been substantially greater than these figures suggest. From June 1896 until the middle of the following year, I have identified six examples of Jack's case notes. I shall describe his contributions to the collection in two parts: from the late 1890s, and then from 1900 onwards.

<sup>128</sup>Whether Jack's style of photography was influenced by his relatives' artistic exploits is uncertain. Jack Macewen's uncle, Hugh (Ugolin) Allan, and Aunt, Jessie B. Allan, and Jack's sister, Daisy were painters and potters during the late nineteenth and early twentieth century, see for example, DC79/87. A search of the Glasgow School of Art database of former staff and students revealed that, Jessie Allan was a teacher at Glasgow School of Art from 1886 to 1902. During this period Miss Allen taught still life, preparatory painting. From 1914 to 1924 she taught watercolour painting.

<sup>129</sup>DC79/143, pages unnumbered.

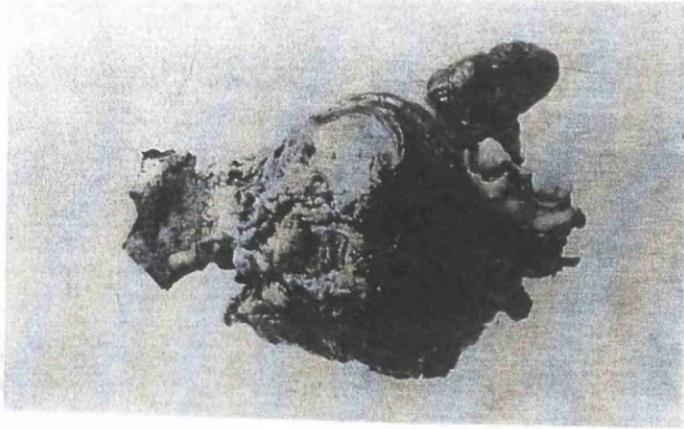


250

Tumour  
Sarcoma  
from Base of Skull

Tumour arising from base of skull - sphenoid plate of sphenoid,  
 filled Anterior of Highmore, the orbital cavity, and projected  
 the mouth.

Wm. MacCallum, M.D., F.R.C.S.  
 24/21



251

The influence of Jack's artistic training is discussed in more detail in Appendix IV in this thesis. Technical aspects of photography are included amongst the case notes; for example, Jack Macewen wrote that a couple of photographs were taken 'by magnes. [magnesium] ribbon' in the operating theatre of the WI in May, 1897.<sup>130</sup> [212-213:300]

Afterwards, he spent a period abroad studying the operative procedures and surgical technique of some of the most distinguished surgeons on the Continent.

I have been unable to identify all the contributors to the collection by using handwriting; there are a minimum of five unidentified authors.<sup>131</sup> [252:327] However, one of Jack Macewen's contemporaries, Archibald Young (1873-1879), contributed to the CC.<sup>132</sup> Like Jack Macewen, Young has a distinctive style of handwriting that can be readily recognised and cross referenced with other sources. While Jack Macewen was entrusted to take photographs and write corresponding case notes, I shall argue that Young was only permitted to do the latter. Therefore identifying Young's hand does not signify that he took photographs for Macewen.

In October 1895, Young served as a Resident Physician to John Lindsay Steven at the GRI. Young photographed one of Steven's patients who was suffering from a disorder of the nervous system, a result of Syphilis.<sup>133</sup> Young photographed the

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<sup>130</sup>Photographs were taken using 'magnes. ribbon' when a patient was being operated on for extravasation of urine, see HB14/19/34 'Hernia, extravasation of urine'.

<sup>131</sup>From top left to right, HB14/19/71; HB14/19/61; HB14/19/20; HB14/19/58; HB14/19/69.

<sup>132</sup>Archibald Young would eventually succeed William Macewen as Regius Professor of Surgery, following his death early in 1924.

<sup>133</sup>Steven, J.L.S. (1896) 'On a Series of Cases Illustrating the Influence of Syphilis in the Sudden Production of Alarming Disorders of the Nervous System', *Glasgow Medical Journal*, 46: 247-254.

# Hermaphrodite

The testicles were not found.  
The scrotum was cleft

4119

# Scoliosis.

(Mid-Dorsal.)

~~Age 11~~ Age 20  
July 1902

# Tumour

Lympho Sarcoma  
of N

Infiltrating muscles

Osteomyelitis of knee - (ossrous)  
Straightening of limb by removal  
of wedge from condyles of  
femur

*Halipis varus*

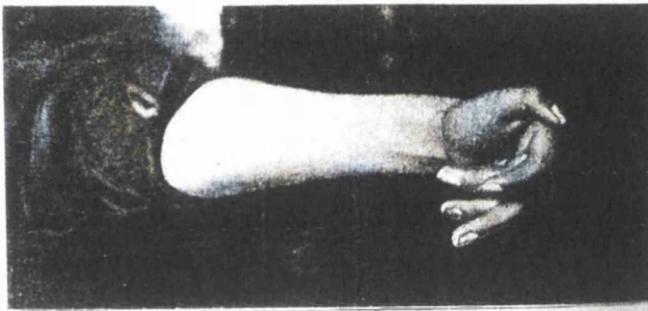
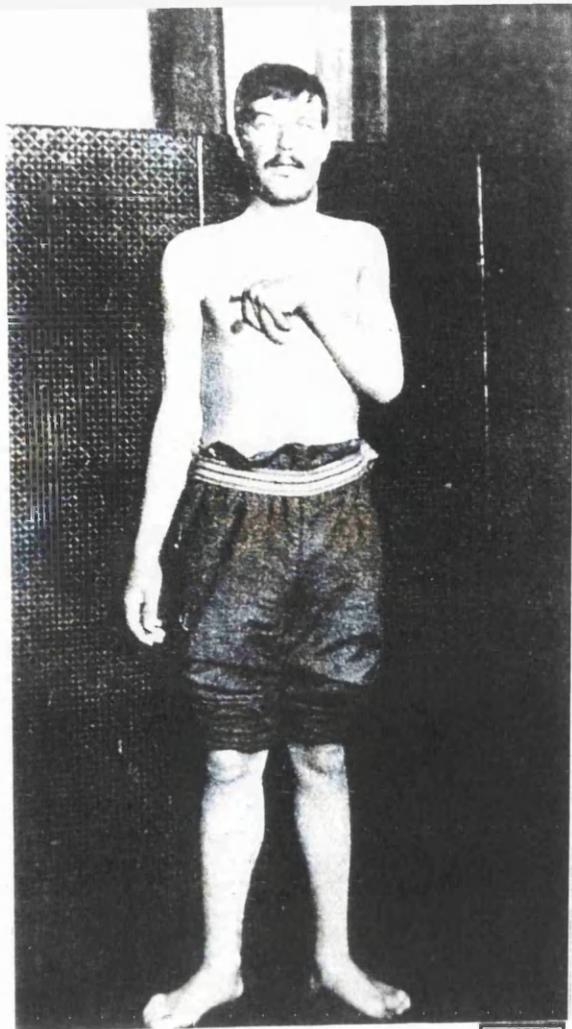


FIG. 1.  
Showing normal state of hand. (Photo. by Archd. Young, B.Sc., M.B.)

253



254

Abscesses.

Mammary. - one week after  
operation.

Post-Partum - one week  
after confinement.

The Left Breast was the seat of 3  
separate abscesses two appeared before  
the right.

The Rt. Breast had only one.

The upper scrotae upon was  
on left side but ~~was~~ on  
on r. side.

at. 34. 25.7.97.



255

patient before and after treatment, and his work was acknowledged when it appeared in the *GMJ* the following year.<sup>134</sup> In April 1897, Young photographed another of Steven's patients, admitted to the GRI, suffering from Spastic Hemiplegia, and again this was reported in the *GMJ*.<sup>135</sup> [253-254:328] Young's photographs are adequate for the purposes of publication; but they can hardly be described as 'well accomplished', either technically, in terms of their sharpness, or aesthetically, as he has paid little attention to the composition. From September 1896, Young began writing case notes on the verso of some of Macewen's photographs.<sup>136</sup> [255:328]

Young's case notes appear on the verso of some of the most stunning and memorable photographs in Macewen's collection. Thus, in comparing clinical photographs known to be taken by Young published in the *GMJ*, with those in the collection which bear his case notes, the overwhelming evidence (both technical and aesthetic) suggests that he was not the photographer of the latter set. While it may be argued that Young could have improved his photographic skills in a matter of months, or they were enhanced if he had access to Macewen's superior equipment, the proposition seems unlikely. I would argue that William and Jack Macewen were responsible for taking the majority of the photographs in the collection. The evidence for this is suggested by the overwhelming continuity of photographic style; this contrasts with the variety of handwriting which make up the case notes.

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<sup>134</sup>Ibid. 252-254.

<sup>135</sup>Steven, J.L.S. (1897) 'Case of Spastic Hemiplegia of Gradual Onset, Following a Severe Attack of Enteritic Fever, and Terminating in Insanity', *Glasgow Medical Journal*, 47: 191-205.

<sup>136</sup>I have approached the identification of Young's hand in the same manner, by comparing his style in the case notes and that included in the Young Papers. I have identified 41 examples of Young's case notes, which date from 1895 to 1898.

On his return to Glasgow, during the late 1890s, Jack Macewen became House Physician to Sir Thomas McCall Anderson, and then House Surgeon to Sir William Macewen, both posts being held at the Glasgow WI. His education was again temporarily disrupted in 1900 when he left Glasgow to become a civil surgeon in South Africa at the outbreak of the Boer War.<sup>137</sup> He served as a Captain of the Royal Army Medical Corp., (T.F.), working in the field hospitals.<sup>138</sup> Jack took a camera with him to record his experiences and took photographs of his colleagues, landscape and the field hospitals. He processed the photographic plates and sent the resulting prints to his family.<sup>139</sup> The photographs were taken at hospitals, staff and patients in Knasap, Nysaland, and that in the village of Katuwa in North-East Rhodesia.<sup>140</sup>

Jack Macewen sent photographs that were of a medical nature to his father. He wrote 'Dear Papa, I send you two photos (very poor) of men struck by lightning. The marks were very prominent. The sun is so perpendicular here that shadows are almost unavoidable.'<sup>141</sup> In order to overcome the lighting conditions and the faded nature of the men's injuries, Jack assisted his father's viewing of the photographs by drawing lines on the photographs in order to define the areas of the men's limbs which had been struck by lightning.<sup>142</sup>

On returning home he began to work with his father again, first as a Junior, then Senior, Assistant. From September 1900, Jack Macewen resumed taking clinical

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<sup>137</sup>DC79/43.

<sup>138</sup>Territorial Force.

<sup>139</sup>DC79/157.

<sup>140</sup>DC79/105-25. The photographs show patients who were suffering from snakebites, cataracts and keloid scarring, Jack also took photographs of colleagues in the CIV camp and field hospital at Orange River. Glass plate negatives. DC79/105, Snakebite, DC79/114-115, Snakebite.

<sup>141</sup>DC79/20, October 1900?

<sup>142</sup>Jack, even though in the desert, adheres to clinical conventions: the men are standing facing the camera, semi-naked. Two shots were taken, one from the front and one from the back.

photographs and writing case notes for inclusion in the collection. He took some well executed portraits of patients. One could argue that, in some instances, the aesthetic qualities of the image seem to eclipse the pathological signs, particularly in a number of images taken to record Spina Bifida Occulta.<sup>143</sup> [226-227:308]

Macewen was also Dispensary Surgeon at GRI and Assistant Surgeon to the Elder Cottage Hospital, Govan.<sup>144</sup> He continued to publish articles concerning cases that he encountered on the wards of the hospital.<sup>145</sup> During this period, he devoted time to writing articles; for example, publishing an illustrated case of hernia of the Veriform Appendix, based on observation of a patient at the Glasgow University Surgical Clinic on 20<sup>th</sup> February, 1906.<sup>146</sup>

Jack Macewen's monographs contain important details that can be used to verify that the GRI collection of clinical photographs was formerly known as the 'Macewen Collection'. During the war of 1914, he again served as a civil surgeon with the RAMC (T.F.), but due to the German advance in 1918, transferred to the military hospital in Etapes, France. On his return, he became Surgeon in the General Hospital, Stobhill, Glasgow, and Consulting Surgeon to several naval hospitals, including the Princess Louise Hospital for Limbless Sailors and Soldiers, Erskine. Here William and Jack Macewen undertook research on 'useful stumps' and artificial limbs in the Erskine Research Laboratory. Jack Macewen recorded many of the results of his work

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<sup>143</sup>See for example HB14/19/67.

<sup>144</sup>One of Jack Macewen's patients at the Elder Hospital was photographed for inclusion in his father's collection of clinical photographs. The annotation on the verso of the board on which the photograph is mounted reads 'Elder Hospital, 1903', HB14/19/74.

<sup>145</sup>See Macewen, J.A.C. (1906) 'A Case of Hernia of the Veriform Appendix, Probably Infantile, and Affected by Suppurative Appendicitis while in the Scrotum', *The Lancet*, I: 297; Macewen, J.A.C. (1908) 'Cavernous Naevus: Treatment by Metallic Magnesium', *The Lancet*, I: 491; Macewen, J.A.C. (1909) 'Hernia of the Veriform Appendix', *Annals of Surgery*, 49: 516-523.

in his book entitled *Fractures, Compound Fractures, Dislocations*. The first edition was published as already noted, in 1919, and the second followed four years later.<sup>147</sup> Both editions contain diagrams, photographic plates and histological sections, but it is the photographs that are of particular interest to this study. One can see there is a juxtaposition of images of patients and specimens: one with a fracture and dislocation of the spine; the other suffering from a mal-united fracture of the femur.<sup>148</sup> The book contains copies of four photographs, and the originals of these can be found in the GRI clinical collection.<sup>149</sup>

In 1926, two years after his father's death, Jack Macewen became Senior Surgeon to the GRI. In August of the same year he applied for the Chair of Surgery at the GRI Medical School, a post he held for the remainder of his career.<sup>150</sup> During the 1930s he

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<sup>146</sup>Macewen, J.A.C. (1906) 'Hernia of the Veriform Appendix, Probably Infantile, and Perforated by a Pin while in the Scrotum', *The Lancet*, I:1677-1678.

<sup>147</sup>See Macewen, J.A.C., (1919) *Fractures, Compound Fractures, Dislocations*. The book contains 61 images.

<sup>147</sup>Macewen, J.A.C. (1923) *Fractures, Compound Fractures, Dislocations and Their Treatment: With Sections on Amputations, Artificial Limbs and Compensation for Injuries* (Glasgow: Maclehose, Jackson & Co.). This second edition contains 66 images. I have identified glass negatives and lantern slides taken at Erskine Hospital that are held in the Macewen Collection at the Royal College of Physicians and Surgeons, Glasgow. Some of these correspond with photographs in Jack Macewen's *Fractures, Compound Fractures, Dislocations*. The GUABRC also hold a smaller quantity of duplicate negatives from Erskine Hospital, Ref. DC79.

<sup>148</sup>See Plate vii, opposite page 60, and plate xi, opposite page 128 in Jack Macewen's *Fractures*, 1919. The dry specimen illustrating a 'Fracture Dislocation of the 5<sup>th</sup> Cervical Vertebra' is preserved in the 'Macewen Collection', Pathology Museum, GRI. Both portraits of the patients originally appeared in Sir William Macewen's collection of clinical photographs. See HB14/19/1-73, GRI Clinical Photographs, as did plates xii, 4; xvii, 2; xx, 2, 4-6; xxii, 1 & 2, xxviii, 1.

<sup>149</sup>The first edition contains 61 illustrations, 43 of which are photographic plates. Of these 4 examples are now in the GRI clinical collection: No. 4, Plate 12, 'Congenital Fractures of both Bones in Leg', 161; Plate 22, No. 1 and 2 'Genu Recurvatum', 215; Plate 28 'Types of Arm Stumps, Conical in a Boy.' Growth of Bone from upper Epiphysis has caused projection of Bone through Skin', 241. In 1923 a second edition was published. See Macewen, J.A.C. (1923) *Fractures, Compound Fractures Dislocations*, 6. This contains the same details on page 6 of the preface regarding Sir William's collection of photographs. There are 66 illustrations, 46 of which are photographic plates. Of these, four can be found in the clinical collection: No. 4, Plate 12, 'Congenital Fractures of both Bones in Leg', 176; Plate 22, No. 1 and 2 'Genu Recurvatum', 239; Plate 28, 'Types of Arm Stumps, Conical in a Boy. Growth of bone from upper epiphysis has caused projection of Bone through Skin', 262.

<sup>150</sup>His testimonies occur in GUABRC, DC79/11.

delivered two courses on systematic surgery.<sup>151</sup> For both courses ‘equal time was spent on lectures, demonstrations and practical work’.<sup>152</sup> It seems likely that at some point during the 1920s or 1930s, Jack moved the collection of photographs from his father’s former premises at the University of Glasgow to the GRI, where they could again be used for teaching purposes.<sup>153</sup> He also continued to undertake surgical teaching at the University of Glasgow.

It is evident that the CC required a considerable amount of time, effort, commitment and upkeep. It evolved over a period of thirty years or so; the earliest photograph dates from 1882, and the latest from 1913. It is extraordinary for many reasons: not only because it is so comprehensive, but also due to its combined artistic and scientific qualities. Jack Macewen referred to some photographs as ‘gifted by the late Dr Patterson’, but hinted that ‘others’ too, had donated work to the collection. The contributions of Archibald Young have already been noted. The following section will explore other contributors to the collection including Patterson, and fellow surgeon, James Hogarth Pringle. The CC also contains drawings by the medical illustrator A.K. Maxwell.

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<sup>151</sup>DC246/2/5 St. Mungo’s Medical School Finance, Annual Return of John A.C. Macewen, an extra academical lecturer in surgery, 9<sup>th</sup> June 1938. Jack lectured on two courses, one in systematic surgery [general, regional], the other in operative [surgery in practice]. N.B. The GRI Medical School became known as St Mungo’s Medical School from the mid-1880s onwards.

<sup>152</sup>Ibid. When Jack was required to ‘give a syllabus of the books proposed for the use of students’ he wrote ‘none put forward specially’.

### *Dr Alexander Patterson*

In 1856, at the age of twenty-one, Patterson took the degree of M.D., and then went on to set up a private practice in Glasgow. At the same time, he was a Demonstrator in Anatomy at the University of Glasgow, until 1868 when he became Dispensary Surgeon at the GRI. The following year William Macewen entered the wards of the GRI as a medical student, and it seems likely that this is where the two men met.<sup>154</sup> From 1874, Patterson was Surgeon and Lecturer in clinical surgery at the Glasgow WI. He was described as a ‘bold and expert operator’, and a pioneer in renal surgery, and ovariectomy; perhaps in the last area he was guided by the influence of his close friend and former photographer, Dr Thomas Keith.<sup>155</sup>

During the 1870s some of Patterson’s illustrated cases were published in the *GMJ*, see Chapter Three in this thesis. Patterson kept together the original prints alongside other photographs to form the basis of a collection, which he may have used for teaching purposes.<sup>156</sup> There is little evidence surrounding Patterson’s teaching practices. However when his obituary appeared in *The Lancet* in 1909, it recorded that

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<sup>153</sup>This may explain why the collection stayed at the GRI after Jack’s death in 1944, until it was deposited in the GGHBA fifty years later.

<sup>154</sup>In 1872 Patterson became surgeon to the Lock Hospital, a post which he held until he retired in 1902. In 1873 Patterson delivered a paper to the Medico-Chirurgical Society entitled ‘Five weeks practice of surgery in the Glasgow Royal Infirmary’, *Glasgow Medical Journal*, 5: 183. Patterson and Macewen also shared a commitment to Listerian principles.

<sup>155</sup>Thomas Keith was a founding member of the Photographic Society of Scotland in 1856, the following year however he began to devote more time to his medical career.

See [http://www.edinphoto.org.uk/3/3\\_pss\\_members\\_keith.htm](http://www.edinphoto.org.uk/3/3_pss_members_keith.htm).(28.7.02).

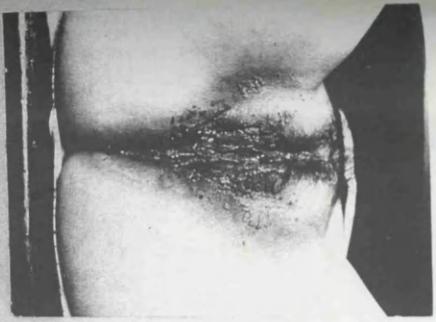
<sup>156</sup>Just how they were used is unclear, perhaps they were laid out on tables, as Macewen’s photographs were.

‘as a teacher he was extremely practical and took the greatest pains in giving his students the very best of his own extensive experience’.<sup>157</sup>

I have identified thirty-one photographs in the CC that I believe were once part of Patterson’s collection. [256-274:336-338] Of these, twenty originally ‘gifted’ by Patterson, as Jack Macewen had described in his *Text Book of Surgery* in 1922, are scattered by subject throughout the CC. Patterson’s photographs can be easily distinguished from Macewen’s: they are smaller in size and in the form of cabinet cards. Many of Patterson’s photographs were taken by local professional studio photographers, as the boards on which the prints are mounted often bear the embossed logos of the particular studio. From 1883 until 1889 some of Patterson’s patients and specimens were photographed by Bowman’s of 65 Jamaica Street, Glasgow, while from 1888 to 1889, he used the services of the R.J. Dodd Studio, also located on Jamaica Street. Patterson evidently preferred to have his photographs taken by a professional rather than attempt taking them himself, even though, as we have seen, photographic facilities had been available in the WI from its opening in 1874.

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<sup>157</sup>‘Obituary, Alexander Patterson’, (1909) *The Lancet*, I: 282-283;‘Obituary, Alexander Patterson’, (1909) *Glasgow Medical Journal*, 71: 113-115.



256



Sclerosis of the chest.  
Ward XIV, W.L. Penning, 1887

257



258



366b



259



Enlarged lower lobe of the thyroid gland in a patient  
of 41 years. Had been enlarged for 13 years.  
Ward XIV, W.L. Penning, 1887

260



Enlarged lower lobe of the thyroid gland in a patient  
of 41 years. Had been enlarged for 13 years.  
Ward XIV, W.L. Penning, 1887

261



Sclerosis in lower end of femur, accompanying lower joint  
Ankylosis. Death in 18 months after limb was  
deposited in lump. Ward XIV, W.L. Penning, 1887

262



336

263

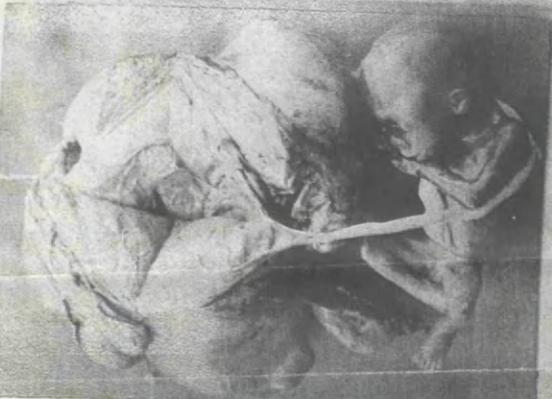
54(b)



Ascites. Five year duration. West XII, VII, 1885.

264

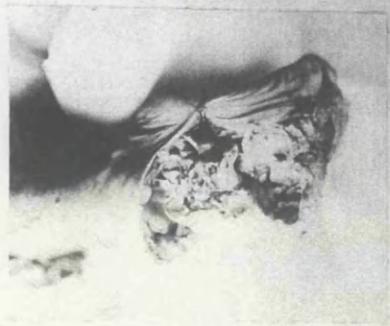
57.



Placenta, bloody with pulmonary embolism in fetus. Head normal. February 1904. (See December 1904.)

265

60.



266

61(a)



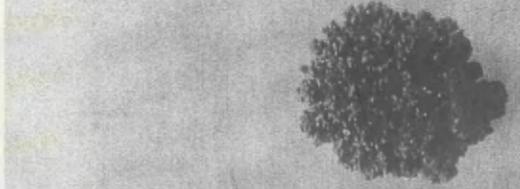
Chronic ... West XII, VII, 1885.

56.



269

70.



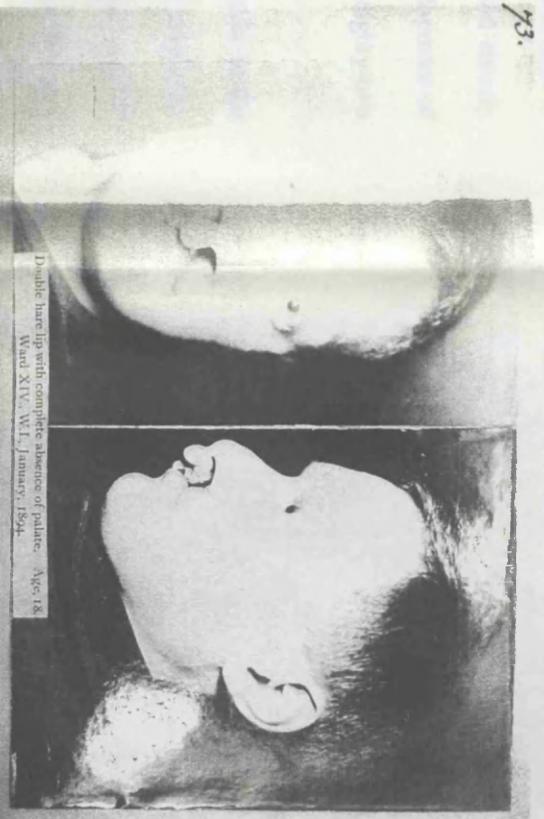
720b.



Showing tumor on the back of patient's hand with a blood vessel in the center. In the center of the tumor is a small hole. - "Tumor" from the series of plates in the book "The Hand" by J. B. Peckham, M.D., New York, 1885.

271

73.

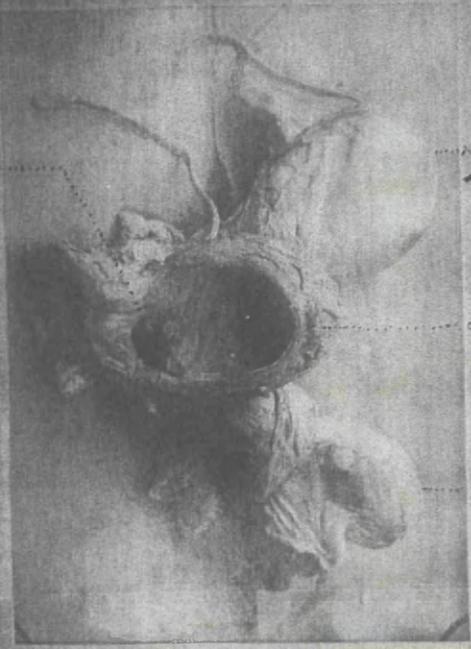


Double lower lip with complete absence of palate. Age 18. Ward XIV, W.I., January, 1894.

272

82

Ward XII, W.I., March, 1885.  
Elevated and Surg. June, August, 1885.



1. Urinary bladder open in front. 2. Left ureter.

274

On the front of the boards on which Patterson's photographs are mounted, there is a number, and sometimes a letter 'a' or 'b', written in the top right hand corner. Although these numbers do not appear to relate to the chronological development of the collection they reveal that it was made up of a minimum of eighty-two photographs.<sup>158</sup>

The case notes written on the verso of the mount boards sometimes refer to the circumstances in which the photographs were taken. For example, it might be recorded if 'the patient was instructed to their eyes while being photographed.'<sup>159</sup> [258:336] By the early 1890s, some of Patterson's patients admitted to the WI were photographed in a 'Private' room. Some patients were photographed in at the Lock Hospital, Glasgow, and the Abbey Hospital, Paisley.<sup>160</sup>

A further nine of Patterson's photographs were included in Jack Macewen's *Text Book of Surgery*, although the originals do not survive. They include images of a 'Hard Chancre', 'Rupia' and 'Cancrum Oris'.<sup>161</sup> In 1898, A. Maitland Ramsay published details of one of Patterson's cases from 1897 in his *Atlas of External Diseases of the Eye*.<sup>162</sup>

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<sup>158</sup>In addition, Patterson's name and address in India Street often appear on the verso of the board.

<sup>159</sup>[258:336] Malignant tumour causing lagophthalmos, (1892); HB14/19/12.

<sup>160</sup>'No. 8' in Patterson's numerical system, the case notes on the verso record that 'J.G. aged 18, was admitted to the Lock Hospital on 8<sup>th</sup> November 1893 suffering from venereal'. When this was included in Jack Macewen's *Text Book of Surgery* in 1922, 70, it was described as 'Gonorrhoeal Warts'. [259:260] Large tumour of face, 1894, Patterson's number 36 (B) was taken of M.N., 'admitted to the Abbey Hospital Paisley, on 14<sup>th</sup> June, 1893 Suffering from a large Tumour of the Face'. Two photographs were taken (front and side shots) on 2<sup>nd</sup> February 1894, HB14/19/12.

<sup>161</sup>Macewen, J.A.C. (1922) *Text Book of Surgery*, 'Hard Chancre' Figs. 18, 19 & 20' 77-78; Fig. 21 & 22 'Rupia', 79; 'Cancrum Oris' Fig. 33, 100; 'Clubbing' Fig. 168 (a), 185; 'Chancre of Tongue', Fig. 294, 357; 'Huge Parotid Tumour', Fig. 302, 363; 'Supernumerary Breast', Fig. 312, 379.

<sup>162</sup>Maitland Ramsay, A. (1898) *Atlas of External Diseases of the Eye* (Glasgow: James Maclehose & Sons), Plate XIII, 49-51.

Just why Patterson donated his photographs to Macewen is unclear. They may have first met at the GRI, and later both worked at the WI from 1892.<sup>163</sup> Another reason is that perhaps Patterson was familiar with, and may even have admired, Macewen's work and his photographs. Even though Patterson's photographs were absorbed into a much larger and more comprehensive collection, this perhaps ensured their survival; and they extended the range of subjects covered, providing for example, images of bladder stones.<sup>164</sup>

The latest surviving photographs in Patterson's collection date to 1898. Four years later Patterson retired due to failing eyesight, and died seven years later.<sup>165</sup> Patterson's photographs adhere to some of the accepted conventions in clinical photography. For example both extreme and unusual cases appealed to him, as well as the before and after shot. Some examples of Patterson's photographs, such as the 'Sarcomatous tumour' from 1885 and 'Sarcoma of the lower femur' from 1889, resemble much earlier clinical photographs that were taken in elaborate studio settings, where grand furniture and drapes are visible in the background details.<sup>166</sup>

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<sup>163</sup>In September 1874 Macewen wrote to Dr James W. Allan, recording that 'Dr Patterson called last night to see if I could get him a dog as he wanted to excise a portion of its bone and transplant it in the arm of a man whose radius had been broken and where there was a portion of bone lost'. See RCPSG10/1A/5/7. Patterson was evidently aware of Macewen's interest in knock-knee. In May, 1878, Patterson wrote to Macewen asking him if he would 'have time to come here to tomorrow's lectures 4 and 5. I expect to have the case of knock knee here at that hour and should like very much that you should see it', DC79/2.

<sup>164</sup>Patterson's photographs were dispersed (via subject matter) throughout Macewen's collection.

<sup>165</sup>These are four photographs from 1898 showing an amputated limb, with the knee joint opened to reveal 'Charcot's Disease'. Three of the four have been tinted with watercolours, one is initialled 'J.C.' or perhaps 'J.G.', see HB14/19/42.

### *Dr James Hogarth Pringle*

James Hogarth Pringle (1863-1941) graduated in medicine from the University of Edinburgh in 1885. Previously he had studied in Glasgow, and he returned there in 1888 to become an assistant to William Macewen. In 1896, Pringle was appointed Surgeon at the GRI, where he remained until his retirement in 1923.<sup>167</sup> Pringle was greatly influenced by Macewen, adopting his 'systematic approach to his work, and occasionally his maverick attitude to irksome infirmary rules and procedures'.<sup>168</sup> In one of his obituaries, Pringle was described as being 'like his great master, Macewen, a pathologist as well'.<sup>169</sup> Pringle also shared an interest in utilising visual material for teaching and research purposes.<sup>170</sup> Not only were some of Pringle's publications lavishly illustrated, he also ventured into photography.<sup>171</sup>

Pringle's clinical photographs are readily identifiable.<sup>172</sup> His prints are smaller, slightly albeit, than the larger standard size used in Macewen's collection. Pringle's photographs date from 1895 onwards, and they are mounted either on blue or cream coloured board. He also wrote the diagnosis on the front, with brief case notes on the

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<sup>166</sup>Patterson's '38' and '39' Sarcomatous tumour, before and after shots from January 1885, see HB14/19/17, and '44' Sarcoma lower end of femur, from 1889, see HB14/19/14.

<sup>167</sup>Pringle assisted Macewen in the naming of structures in his *Atlas of Head Sections*. See Macewen, W. (1893) *Atlas of Head Sections*, Preface, pages unnumbered.

<sup>168</sup>Jenkinson, J., Moss, M., & Russell, I. (1994) *The Royal: The History of Glasgow Royal Infirmary 1794-1994* (Glasgow: Glasgow Royal Infirmary NHS Trust), 127.

<sup>169</sup>'Obituary, James Hogarth Pringle', (1941) *Glasgow Medical Journal*, New Series, 17: 153-157, see also *British Medical Journal*, (1941) I: 734; see also *The Lancet* (1941) I: 651.

<sup>170</sup>His case notes make reference to photographic plates, dating from 1900 to 1923. He also collected a series of colour printed plates showing diseases of the tongue, dating from 1877 to 1902, RCPSG33.

<sup>171</sup>See for example Pringle J. H. (1886) 'Notes on a Curious Accident', *Edinburgh Medical Journal*, 33: 527-529; Pringle, J. H. (1910) *Fractures and Their Treatment* (London: Hodder & Stoughton); Pringle, J. H., Stewart, L.T., & Teacher, J.H. (1921) 'Digestion of the Oesophagus as a cause of Post-Operative and other forms of Haematemesis', *Journal of Pathology and Bacteriology*, 24: 396-412.

verso.<sup>173</sup> [275-276:343] In Macewen's photographs the diagnosis was hidden from view, on the verso of the board, whereas it was revealed instantly to viewers of Pringle's photographs.<sup>174</sup>

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<sup>172</sup>For example see 'Frontal Meningocele' HB14/19/52; 'Dislocation of Cervical Vertebra', HB14/19/44. I have identified circa fifteen photographs taken by Pringle and donated to the Macewen collection of clinical photographs.

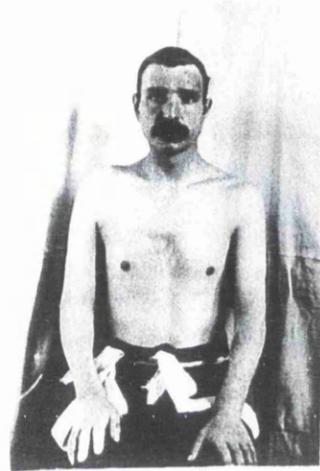
<sup>173</sup>Dislocation of Cervical Vertebrae, (1898), HB14/19/44.

<sup>174</sup>It is possible to identify Pringle as the author of these notes by cross-referencing them with other sources relating to Pringle, see for example, RCPSG33.



*Dislocation of Cervical Vertebra*

275



*after operation.  
Disloc. Cervical vertebra.*

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## *A.K. Maxwell*

Throughout its evolution, small numbers of drawings, paintings and photographs were donated to the CC.<sup>175</sup> One of the drawings can be attributed to the medical illustrator A.K. Maxwell (1884-1975), who later in his career produced images for publications including *Gray's Anatomy* and W.J. Hamilton's *Human Embryology*.<sup>176</sup> There are a further four drawings and watercolours that may also be the work of Maxwell.<sup>177</sup>[277:345] In 1915, Maxwell was invited by Colonel Sir George Makens of the R.A.M.C. to go to Boulogne to make surgical illustrations, some of which were published in the *British Journal of Surgery*.<sup>178</sup> He returned to Scotland only briefly before being enlisted in the army as a medical illustrator, and sergeant in the RAMC.

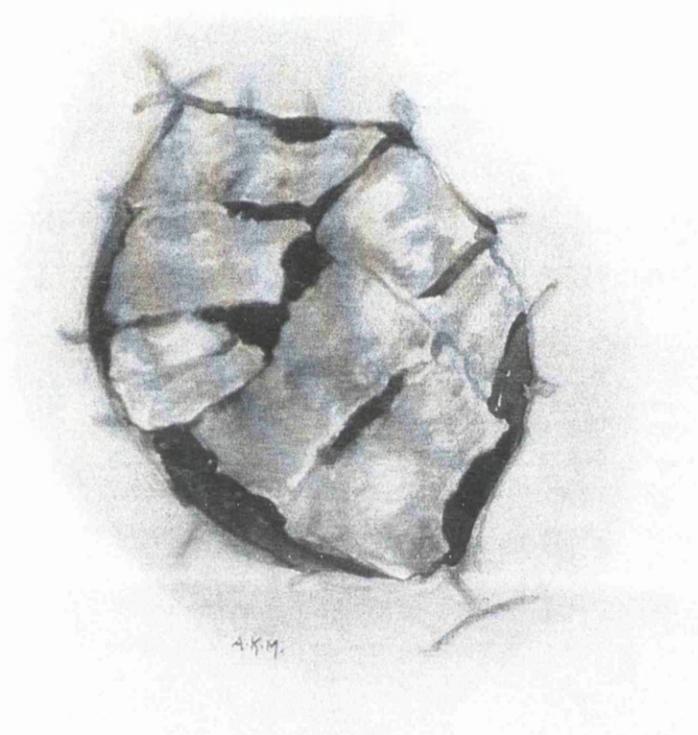
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<sup>175</sup>Two watercolours of carcinoma of the mamma were signed by 'F.M.W. 1919', HB14/19/2.

<sup>176</sup>See for example Hamilton, W.J., Boyd, J.D. & Mossman, H.W. (1946) *Human Embryology: Prenatal Development of Form and Function* (Cambridge: W. Heffer & Sons Ltd.). Only one drawing [skin graft?] in Macewen's collection is signed 'A.K.M.' with the words 'Drawn Dec. 11<sup>th</sup> 1915' on the verso. See 'Unidentified' HB14/19/73.

<sup>177</sup>An untitled watercolour [bruised eyes?], above which is written '3 days 22/XI/18' on the verso, is notated 'P. K., Ward 29', Reference HB14/19/43. There are two watercolours of the 'frontal temporal bone' on the verso of each is written 'Alex. Brown 25.12.18 FB.4, 208, HB14/19/71. Finally, a black and white charcoal drawing on the verso is written, 'To show vascular supply of "connecting loop" between two sealed loops of bowel in one hernial sac. From a dissection of my own 1905 Q.M.C.' The latter possibly refers to Queen Margaret's Medical College, Glasgow.

<sup>178</sup>There have been a couple of papers published on Maxwell in the past few years see Bell, R.M. and Clark Kennedy, A.E. (1973) 'A. Kirkpatrick Maxwell: An Illustrated Appreciation', *Medical and Biological Illustration*, 23:17-22. Elliott, P. (1999) 'A. Kirkpatrick Maxwell', *Journal of Audiovisual Media in Medicine*, 22: 130-131.



AKM.

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## **Chapter Six, Section IV: Photography within the Context of Macewen's Teaching**

In 1892 Macewen was installed as Regius Professor of Surgery at the University of Glasgow and Honorary Visiting Surgeon to the WI. Macewen's dedication to teaching becomes more apparent at the WI, where he began to expand all of the collections he had begun at the GRI. It must be emphasised that clinical photographs were only one of many visual media used by Macewen for teaching purposes. He also made extensive use of lantern slides, casts and specimens.

Macewen's commitment to teaching had been questioned earlier in his career. When he was poised to apply for the Regius Chair, the Professor of Medicine, William Tennent Gairdner wrote to Macewen on 9<sup>th</sup> September 1892, stating that:

Dr Cameron's resolution not to contest the surgical chair removed the only personal difficulty I should have had in declaring myself in your favour ... I sincerely hope you will get it - but if you do, I hope you will not abandon the clinical teaching. I am told that in the G.R.I. you do not care about, this? Rather discourage this, in your own wards. Now, there may be reasons, unknown to me, for this. But as a matter of experience, I am very sure that clinical teaching in some measure, is a sine qua non for good systematic teaching according to modern methods. I mean for the teachers, even more than for his pupils. I have acted all my life on this idea, & I am pretty well convinced now that if at any time I had ceased teaching in the hospital (say for 10 years) the quality of my class room teaching would have gone down.<sup>179</sup>

Macewen's alleged lack of willingness to teach could in part be explained by his overriding interest in research.

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<sup>179</sup>William Tennant Gairdner to Macewen 9<sup>th</sup> September, 1892, RCPSG10, Box 1A. Emphasis is original.

There are few explicit clues regarding Macewen's teaching practices *per se*. One recurrent theme that persists among anecdotal evidence is Macewen's dislike of book learning. One of his former colleagues, John Patrick, recalled that 'as a teacher Macewen made a profound impression on the minds of students, they saw him as one who swept tradition and textbook aside'.<sup>180</sup> This was reinforced by another former student Charles Duguid, who stated that a 'bookish knowledge of surgery was neither asked for nor desired'.<sup>181</sup>

Macewen preferred to partake in question and answer sessions. Dr Elsie Inglis was one of his students at the GRI early in 1891. On 9<sup>th</sup> February, as she later recalled:

This morning I spent the whole time in Dr. MacEwan's [sic] wards. He put me through my pacings. I could not think what he meant, he asked me so many questions. It seems it is his way of greeting a new student. Some of them cannot bear him, but I think he is really nice, though he can be abominably sarcastic, and he is a first-rate surgeon and capital teacher.<sup>182</sup>

She goes on to describe a 'very curious' case that came into Macewen's wards. 'Some of us tried to draw it, never thinking that he would see us, and suddenly he swooped round and insisted on seeing every one of the scribbles. He has eyes, I believe, in the back of his head and ears everywhere.'<sup>183</sup>

Details of Macewen's first course in surgery appears in the *Glasgow University Calendar* for 1893.<sup>184</sup> The course covered: anaesthesia; wounds; inflammation; infective processes; neoplasms; injuries and Regional Surgery.<sup>185</sup> The course offered

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<sup>180</sup>See J.[ohn] P.[atrick] (1924) 'Obituary, Sir William Macewen', *Glasgow Medical Journal*, 101:226

<sup>181</sup>Duguid, C. (1957) *Macewen of Glasgow: A Recollection of the Chief* (Edinburgh: Oliver & Boyd), 5.

<sup>182</sup>Balfour, F. (1918) *Dr. Elsie Inglis* (London: Hodder & Stoughton), 49.

<sup>183</sup>*Ibid.* 51.

<sup>184</sup>*Glasgow University Calendar for the Year 1893-94* (Glasgow: James Maclehose & Sons, 1893), 74-75.

<sup>185</sup>*Ibid.*

by his predecessor Sir George Macleod was somewhat different: it included the history of surgery; maladies common to tissues and organs; injuries; affections; tumours; diagnosis and operations.<sup>186</sup> As Regius Professor, Macewen sustained the practice of teaching through demonstrations, using photographs, lantern slides, casts and specimens, along with question and answer sessions, and by showing patients to medical students. For example, in a list of his first year expenses from 1892 to 1893, Macewen refers to 'Cab fares £10 this is for carriage of special patients to class.'<sup>187</sup>

Duguid stated that:

Macewen's method of teaching was by question and answer. The junior man was usually asked to look at the patient and to describe what he saw, the other two being appealed to in turn. No palpation was allowed until Sir William was satisfied that each had used his eyesight to the best advantage. The three in turn were allowed to use the hand and each was asked what he made out. After this the junior was looked to for a diagnosis ... Quite often the class had to file past the patient and each student was asked to write his name and his diagnosis on a slip of paper which was handed in. These were sorted by the assistants and laid before the Chief, who then discussed them. The main class was enabled to follow the case by means of a mirror slung from the roof, the angle of inclination being alterable at will.<sup>188</sup>

Here, Duguid is referring to Macewen's 'Mirror Apparatus'.<sup>189</sup>[278-279:349]

Macewen made detailed sketches and drawings showing how the mirror apparatus worked. Photographs were taken of the mirror, in which a birds-eye view of a 'staged' operation was reflected. Thus the photograph provides us with the kind of image the student would have seen.

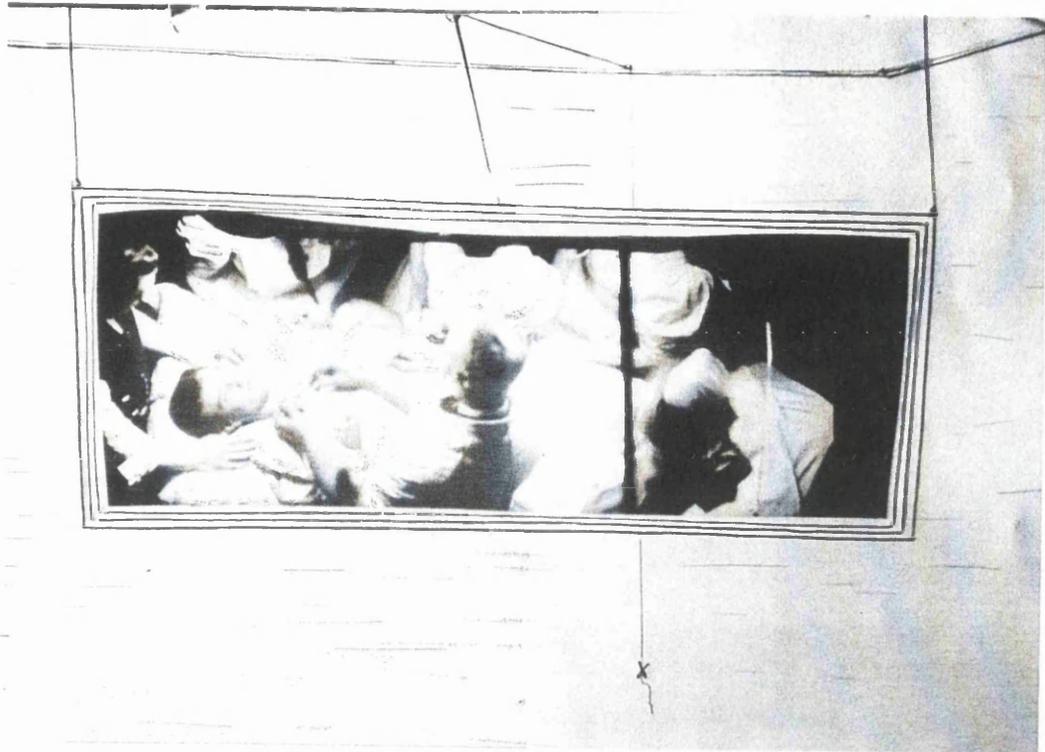
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<sup>186</sup>*Glasgow University Calendar for the Year 1892-93* (Glasgow: James Maclehose & Sons, 1892), 85.

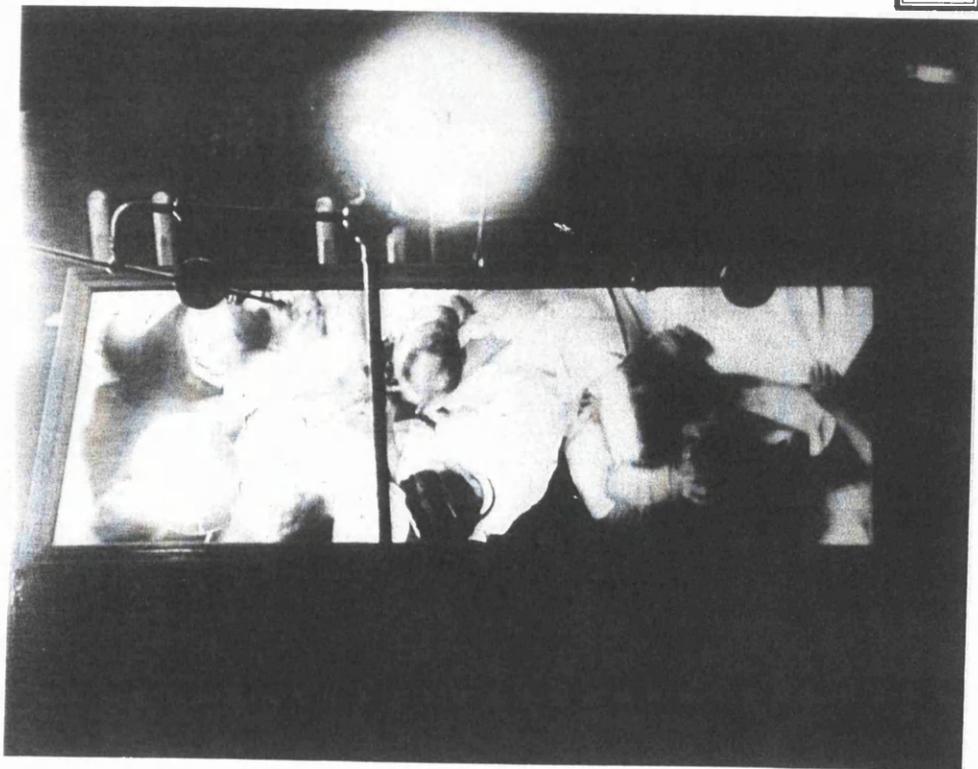
<sup>187</sup>RCPSG10/Box1B, File 32.

<sup>188</sup>Duguid, C. (1957) *Macewen of Glasgow*, 4-5. Duguid goes on to state that this was the 'routine on Tuesdays, Thursdays and Fridays between 9.15 and 11 a.m. From 11 a.m. till noon Sir William operated ... in the theatre ... On Mondays the class met for the instruction in bandaging and fractures Wednesday was devoted to operations, Sir William being in the theatre from 9.15 a.m. to 12 noon', 6-7.

<sup>189</sup>See RCPSG10, Box 5, File 9, 'Directions for using a Mirror for showing Operations to Students at a Distance'. This is reminiscent of Thomas Eakins heroic painting entitled 'The Gross Clinic' (1875).



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The head of Macewen and those of his assistants border the image. In the centre of the image is a fully conscious ‘patient’ lying on the table, who looks directly in the mirror, thus simulating an operation for photographic purposes.

A.J. Cronin, a former student, recalled Macewen entering his operating theatre at the Glasgow WI:

He was already gowned for the operation, and after quietly studying a few X-ray photographs, he turned towards the class ... “Gentlemen, we have today an interesting case which we believe... exhibits unmistakably the symptoms of intracranial glioma.” He paused, and his eye, roving the benches, came to rest — no doubt because I sat at the end of the front row — upon me. “What are these symptoms?”<sup>190</sup>

### *Lantern slides*

As well as clinical photographs, Macewen used other forms of visual media in teaching.<sup>191</sup> In 1893, Macewen also decided to purchase a projection microscope and a lantern projector from Newton & Co.<sup>192</sup> Over the next few months Macewen and Newton & Co. exchanged correspondence regarding the purchasing of the ‘right’ equipment. Macewen informed Newton & Co. of his intention to project images of bacteria through a projecting microscope. They responded by saying that:

[W]e have not had an opportunity of seeing what we can do with bacteria, so cannot give an opinion, but we should not anticipate much difficulty in such subjects for class work. You are of course aware the projection instruments are

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<sup>190</sup>Cronin, A.J. (1952) *Adventures in Two Worlds* (London: Victor Gollancz Ltd.), 12. Cronin suggests that at this time Macewen was already in his seventies, so his comments may refer to the first two decades of the Twentieth Century.

<sup>191</sup>By 1892, the University of Glasgow was discussing the employment of a photographic operator, who would be employed to make lantern slides. See for example the Court Meeting Papers, CI/4/163, C1/4/169.

<sup>192</sup>From 16 November 1892, Macewen conducted an extended correspondence with Newton & Co., regarding the purchase of a ‘projection rotary lantern’, RCPSG10/Box1B, File 32.

not suitable for research, & that if detail is not clear in a slide under the table microscope, it is useless to expect to see it at all in projection. Personally we incline more & more towards magnification by eyepieces, but your experience will so soon outstrip ours, that we fear our suggestions will not be of much value to you.<sup>193</sup>

In a similar fashion, correspondence was exchanged regarding the purchase of a lantern projector.<sup>194</sup> Newton & Co., queried what purposes the lantern would serve, and Macewen replied that:

[W]e wish this lantern slide for histological specimens of a pathological kind and for bacteria-this [word indecipherable] our principal uses. Besides however we wish to see the circulation of the blood in various animals-frogs &c. ... If it could be delivered by Christmas it would be a great assistance as we could have the quietness of the holiday season for getting it into working order before students return.<sup>195</sup>

Finally, early in 1893 Macewen ordered a 'Triple Rotating Electric Lantern with Microscope suspended front & vertical attachment without parallelizing condenser or slit or diaphragm but with traversing table & electric lamp'.<sup>196</sup>

Macewen evidently accrued a large collection of lantern slides.<sup>197</sup> Unfortunately I have been unable to locate any of his histological lantern slides. However, many of

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<sup>193</sup>November 23<sup>rd</sup> 1892, Newton & Co. to Macewen, regarding his wish to project images of bacteria, through projecting microscope, RCPSG10/Box1B, File 32. Newton & Co.'s letter goes on to state that 'We believe there is a vast field for improving the results by experiments in staining for differentiation, & also by use of ach. substage condensor apochromatic objective & iris diaphragms ... we believe Lewis Wright has been trying it on the screen.'

<sup>194</sup>On January 24<sup>th</sup> 1893, Newton & Co. sent Macewen a small-labelled woodcut of the lantern, and explained how it worked.

<sup>195</sup>November 24<sup>th</sup> 1892, Macewen to Newton & Co., RCPSG10/Box1B, File 32.

<sup>196</sup>Macewen's order was dated 21<sup>st</sup> March, 1893. This also included a series of objectives 2" 42/ , 12 pairs of carbons, 25 histology, 6 bacilli, no. 2 substage condenser, 1 eyepiece for electric micro. Total £143.29, RCPSG10/Box1B, File 32.

<sup>197</sup>The Edinburgh physician, Byrom Bramwell, also made a collection of black & white and coloured lantern slides, which he used for teaching purposes. It is unclear whether Bramwell was the photographer, but many of the images appeared in his *Atlas of Clinical Medicine*. Bramwell, B. (1892-1896) *Atlas of Clinical Medicine* (Edinburgh: Constable, 3 Volumes). Sir Byrom Bramwell (1847-1931) was a lecturer in the Edinburgh Extramural School of Medicine in 1879. Three years later, he was Pathologist at the Edinburgh Royal Infirmary and in 1895, Assistant Physician. From 1879 to 1912

the images were reproduced in John A.C. Macewen's *Text Book of Surgery*.<sup>198</sup> However, a series of lantern slides taken from William Macewen's books *The Growth of Bone* and *The Growth and Shedding of the Antler of the Deer*, are now held in the RCPSG.<sup>199</sup>

Macewen also used lantern slides and a projector in his addresses and speeches. For example in September 1896 he travelled to San Francisco to deliver the first Lane Lectures at Cooper Medical College.<sup>200</sup> R.H. Plummer of the Lane Medical School sent an account perhaps intended for publication to Macewen in October the same year, recording that:

Dr Macewen came and began the course on Monday September 14<sup>th</sup>. The subject selected for this course was the "Surgery of the Brain", on which he delivered five lectures, in which he gave a masterly exposition of the Surgical Anatomy of the brain, the relation of the organ to its containing walls, and the localisation of points in the cortex of the brain which are the centres controlling movement of the face and limbs, also the centres of articulate language, vision and audition. He richly illustrated his subject by pictures thrown on a screen by means of lantern slides. The lectures were entirely the product of original research made by Professor Macewen in this section of medicine; the screen illustrations were from sections which had made of the frozen head. Besides the screen pictures, he had a great number of photographs and drawings, by which he regularly demonstrated each point in his lectures. In fact so numerous were these graphic illustrations,

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he was full Physician at the Infirmary. He was an 'energetic and enthusiastic teacher'. See Ashworth, B. (1986) *The Bramwells of Edinburgh: A Medical Dynasty* (Edinburgh: Royal College of Physicians, Edinburgh), 11. Bramwell's collection of lantern slides is held in the Department of Special Collections at Edinburgh University Library. They have not been catalogued, but a provisional examination estimates there are approximately 200 to 300 lantern slides of patients and cropped body shots. A large number are concerned with diseases of the brain. Bryom Bramwell's son, Edwin, also contributed slides to the collection, and included photographs in some of his ward journals from the Edinburgh Royal Infirmary.

<sup>198</sup>Macewen, J.A.C. (1922) *Text Book of Surgery*, see for example page 130, 'Fig. 69'.

<sup>199</sup>RCPSG10. See Macewen, W. (1912) *The Growth of Bone: Observations on Osteogenesis, An Experimental Inquiry into The Development and Reproduction of Diaphyseal Bone* (Glasgow: James Maclehose & Sons) see especially, the Preface, page 6, where Macewen records 'his indebtedness is also due to Sister Douglas for some of the illustrations, and to both her and Sister Saunders for help in photography'. See also Macewen, W. (1920) *The Growth and Shedding of the Antler of the Deer: The Histological Phenomena and their Relation to the Growth of Bone* (Glasgow: Maclehose, Jackson & Co.). In the Preface, page vi, Macewen thanked 'Dr MacMurray for making several histological drawings from slides illustrative of nuclear budding'.

<sup>200</sup>For a general account see Keller, T.M. (1986) 'Sir William Macewen's Visit to California as the First Lane Medical Lecturer: A Centennial Celebration', *Western Medical Journal*, 165: 279-282.

that, for the time, the North end of the auditorium seemed converted into a picture gallery. Besides the course on the Surgery of the Brain Professor Macewen delivered other lectures, and he also performed two operations in the amphitheatre of Lane Hospital, one being for the correction of genu valgum, and another the so-called mastoid operation. In this operative work he exhibited great mechanical dexterity.<sup>201</sup>

Moreover, on January 14<sup>th</sup>, 1898, Mrs. Pauline C. Lane wrote to Macewen with

further memories of the Lectures delivered in 1896:

Near the beginning of 1897 William Macewen, Regius Professor of Surgery in the University of Glasgow, was engaged to inaugurate this course in Sept. 1896. The subject of these lectures was “The Surgery of the Brain”, and the lectures thereon delivered were remarkable for originality, clearness, and the full exposition of the subject, which was illustrated by original photography and drawings brought by Prof. Macewen with great trouble and expense, especially and solely for the illustration of these lectures. So valuable did he hold these that they were sent in different shipments, in order, should damage or loss occur, that the whole would not suffer the same. The lectures were delivered in the auditorium of Cooper Medical College and were listened to by an audience composed of the Students of the College, and by medical men from San Francisco, and from many points on the Pacific Coast.<sup>202</sup>

Plummer and Lane’s correspondence provides invaluable details regarding Macewen’s use of visual media in these series of lectures. The sections of ‘the frozen head’ referred to by Plummer were probably amongst those made for Macewen’s *Atlas of Head Sections*, published in 1893.<sup>203</sup> Macewen evidently invested a great deal of time and effort in taking photographs and preparing lantern slides for these lectures.<sup>204</sup>

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<sup>201</sup>R.H. Plummer, to William Macewen, 2<sup>nd</sup> October 1896, RCPSG10, Box 1A.

<sup>202</sup>DC79/7.

<sup>203</sup>Macewen, W. (1893) *Atlas of Head Sections: Fifty-Three engraved Copperplates of Frozen Sections of the Head and Fifty-Three Key Plates with Descriptive Text* (Glasgow: James Maclehose).

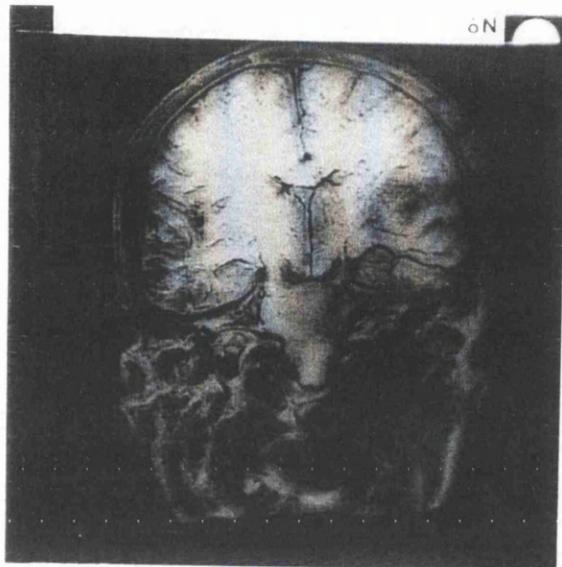
<sup>204</sup>For details of Macewen’s Lectures: See Macewen, W. (1896) ‘Surgery of the Brain: Abstracts of the Lane Course of Medical Lectures, inaugurated at Cooper Medical College, September 14, 1896’, *Occidental Medical Times*, 10: 641-672. ‘Lecture No. 2’, Localisation of the Brain, 645, ‘the speaker then exhibited a number of frozen pathological sections of the Brain, showing the very great distension of the ventricles, sometimes occurring in Hydrocephalus ... he said “such specimens tell you better than

I have identified some of the lantern slides used by Macewen in the Lane Lectures, within the Macewen Papers held in the RCPSG.<sup>205</sup> [280:355]

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words can, however serious it would be for anyone to attempt to remove the fluid from such a case of Hydrocephalus”.

<sup>205</sup>[280:355] This plate is represented in verso. See RCPSG10/11/1-7, seven boxes of lantern slides are held within one large box. One box contains spare glass plates. Six of the remaining contain images of sections of brains and tumours and the seven contains copies of plates from Macewen’s *Atlas of Head Sections*. Some of the slides are held in boxes, which bear the name of Ilford & Co., a well-known photographic company. Other lantern slides survive relating to Dr John A.C. Macewen’s *Fractures, Compound Fractures, Dislocations*, see GUABRC, DC79/70/173.



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## *Models, Casts, Specimens*

Macewen's first references to his use of plaster casts appeared in his book *Osteotomy*, published in 1880. Here, four plaster casts, taken from limbs exhibiting Genu Varum, Genu Valgum, and Tibial Curves, were used as the basis of illustrations.<sup>206</sup>

Just how comprehensive Macewen's collection of plaster casts is unclear. It seems likely, however, that the casts were part of a bigger collection begun by Macewen. This eventually included: long bones; dried skulls; mastoids; head sections; soft tissue specimens; comparative pathology and experiments.<sup>207</sup> Thirteen casts were described by A.J. Marshall and J.A.G. Burton in their *Catalogue of the Pathological Preparations*, published in 1962. These casts are currently held in the GRI Pathology Museum.<sup>208</sup>

It is conceivable that some of these casts, such as those of Talipes Equino Varus may have been used as the basis for engravings in Macewen's *Osteotomy*.<sup>209</sup>

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<sup>206</sup>Ibid., see Fig. 3, 36 typical case of Genu Varum, Fig. 7, 47-48, case of Genu Valgum complicated with Tibial Curves, cast previous to operation, Fig. 12, 55, cast of Tibial Curves, Fig. 13, 55, Cast curves lower third Tibia.

<sup>207</sup>See Marshall, A.J. & Burton, J.A.G. (1962) *Catalogue of the Pathological Preparations of Dr William Hunter, Sir William Macewen, Prof. John H. Teacher, Professor J.A.G. Burton: In the Museum of the Pathology Department, Glasgow Royal Infirmary* (Glasgow: University of Glasgow), 532-556. The authors provide the following inventory of Macewen's pathological preparations: Long bones (37 in number), Dried skulls (19), Mastoids (8), Head sections (8), Soft tissue specimens (28), Comparative pathology, Miscellaneous specimens (6), Experimental (6).

<sup>208</sup>Marshall, A.J. et al. (1962) *Catalogue of the Pathological Preparations*, 532-556.

<sup>209</sup>Ibid. The casts are itemised as follows: 'C.1., Talipes equino-varus, cast of the left foot from a young person showing an early equino-varus deformity. The degree of varus is slight. C.2., Talipes equino-varus, cast of the right foot of an adult showing an extreme degree of equinus deformity with a moderate varus. C.3., Talipes equino-varus, cast of the left foot of a young adult showing fully developed equino-varus. The foot is inverted through 90 degrees and callosities are present on the outer side of the foot. C.4., Talipes equino varus, cast of the right leg from a young person showing extreme equino varus deformity. There is a large callosity over the cuboid. C.5., Macrodactyly, cast of the left foot from an adult. The second and third toes are fused and show gross macrodactyly. C.6., Rickets, cast of left leg from a child, aged 10 years, showing marked rachitic deformity in the lower third of the leg and anterior and internal curvature. C.7., Rickets, cast of the right leg from a child, aged 14 years,

Macewen became an accomplished maker of plaster casts. It may be that he followed a recipe used by the Edinburgh surgeon, Charles W. Cathcart.<sup>210</sup> A note detailing Cathcart's recipe is among William Macewen's papers at the RCPSG. Dr John A.C. Macewen recalled that his:

[F]ather was an expert at making plaster of Paris casts, of which he had a large collection, and which were used to illustrate clinical lectures. He learned the art from an Italian gentleman ... when they took casts of particularly severe rickety deformities, and one of my early recollections is of a room with dozens of such casts suspended from the ceiling where they were drying after painting.<sup>211</sup>

Each of the surviving casts has a hook screwed into the top, by which the cast was hung up.<sup>212</sup> [281:359] After the cast was dried, it was painted in a pink emulsion. Photographs were taken of casts while they were hung up to dry. One can even see where some casts have been remoulded by hand, as fingerprints were left on the cast itself. Perhaps among the most striking casts to survive are those of brain sections. A section of the brain was placed on a plate, and then a plaster cast was taken of both items together. This resulted in the creation of a large medallion, which was then hung up on a hook. [282:359]

News of Macewen's skill at making plaster casts spread. In 1898, Lawson Tait wrote:

I am sorry to have to disabuse the mind of Professor Peters that the process of making casts by means of paraffin is either new or original. I invented the

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showing rachitic deformity in the lower third with anterior and external curvature. C.8., Tubercle of wrist-joint, cast of the left hand of a young girl showing tuberculous disease of the wrist joint. C.9., Multiple enchondromata of hand, cast of the right hand showing multiple enchondromata with gross deformity. C.10., Syme's amputation, cast of the foot from an adult showing a typical Syme's amputation. C.11. - C12., Base of brain, C13., cast of brain sections to demonstrate distribution of nerve elements.' See Marshall, A.J. et al. (1962) *Catalogue of the Pathological Preparations*, 532-556.

<sup>210</sup>See 'Notes on Materials for Casts, by Charles W. Cathcart', RCPSG10, Box 3, File 13. The recipe included 'strong glue/gelatine glycerine & water ... the cast may be then pulled out from the mould without fear of breaking'.

<sup>211</sup>DC79/43.

process at Bathgate, where paraffin was plentiful, in or about the year 1864, and published it either in the *Medical Times and Gazette* or in *Nature* (perhaps both) about 1867 - 68 ... I did all this with paraffin, a rough painter's brush, a sponge is not necessary, and it certainly must be expensive and cumbersome; besides, it cannot be carried about. A far better way of setting the mould, than by laying in threads, is my plan of using a fine saw of watch-spring steel. About the same time I advertised paraffin as a substance for the "*appareil immobile*", superior to starch or plaster, and though similarly recommended many years after by Professor William MacEwen it never seemed to have obtained the popularity it certainly deserves.<sup>213</sup>

From the early 1880s, Macewen had begun to devote considerable time and effort to the taking of photographs and the making of casts and specimens. Macewen would use all of these media to draw prospective medical students to his surgical course at the University of Glasgow.<sup>214</sup> Macewen's entry in the *Calendar* for 1894-1895 was updated, and more comprehensive, recording that:

The Professor delivers during winter a course extending to 100 meetings of the Class, and consisting of systematic lectures, illustrated by diagrams, casts, and pathological preparations, and of frequent demonstrations, in many of which the electric projection microscope is used for demonstrating surgical pathological histology.<sup>215</sup>

Thus, all the elements of Macewen's 'own museum' were brought together in the Systematic class, although the word 'photograph' is notably absent from the *Calendar* entry.<sup>216</sup>

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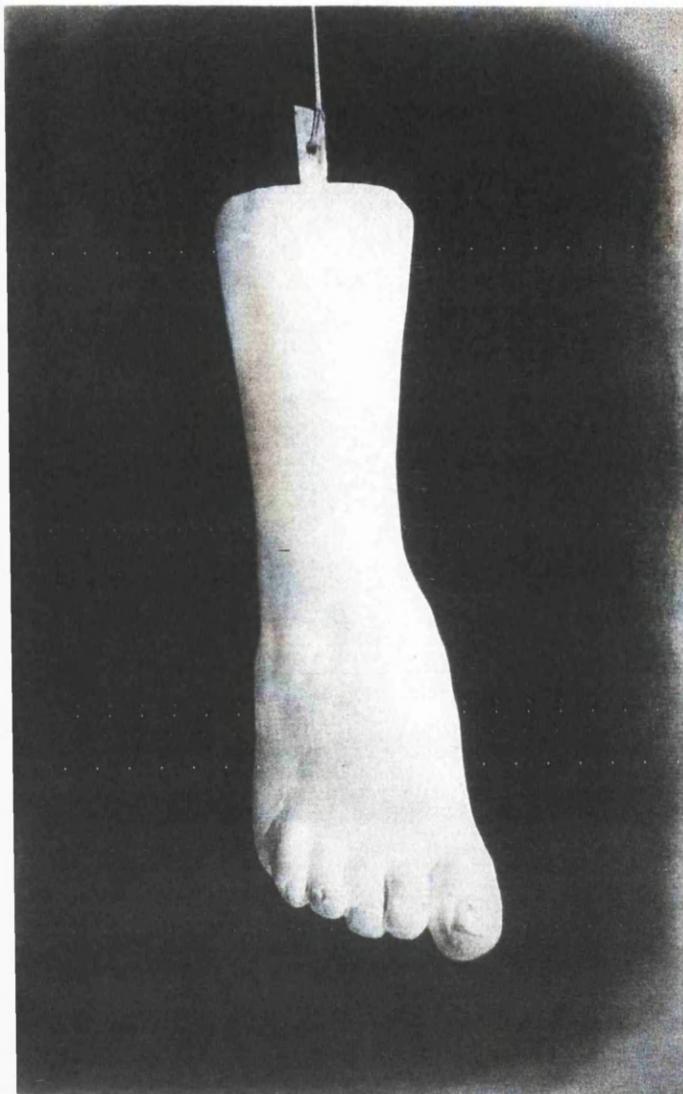
<sup>213</sup>Tait, L. (1898) 'A New and Original Method of Making Casts', *British Medical Journal*, II: 456.

<sup>214</sup>In 1892 Macewen had a total of 282 students. RCPSG10/Box1B, File 32.

<sup>215</sup>*The Glasgow University Calendar, 1894-1895* (Glasgow: James Maclehose & Sons, 1894) 79.

The electric projection microscope was last referred to in the *Glasgow University Calendar* for 1902. However, Macewen's course details continued to make reference to diagrams, casts and pathological preparations until his death in 1924.

<sup>216</sup>In 1893, Macewen purchased from Wm. Martin & Co., Geographical &c. Modellers, one Skeleton, two Ears and one Larynx, followed by a 'lot of four Legs and a model of a Head'. Such purchases seemed few and far between. Macewen evidently preferred to make his own plaster casts and pathological preparations. Macewen ordered these items on 25<sup>th</sup> February 1893). Wm. Martin and Co. were located on 67 West Nile Street. Macewen also ordered 1 skeleton, 'Tramond's (Paris) preparation'. On 17<sup>th</sup> February 1893 'Man, complete, for Luxations, box and packing, freight from Paris. £14. 82'. Glasgow RCPSG10/Box1B, File 32.



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C. 12. BASE OF BRAIN

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A former colleague, George Grey Turner, recalled that he could not ‘help thinking that [Macewen’s] plan of clinical teaching was modelled on the same lines as that of his life-long friend, Theodor Kocher of Berne’.<sup>217</sup> For Turner, Kocher’s was one of the most admirable teaching clinics:

Not only did the students see the patients as they were being interrogated for the first time, but they were expected to make their own observations and examinations while Professor Kocher elucidated the main points by question and answer. All the investigations that were necessary to reveal the diagnosis were carefully carried out, and if necessary the same patient appeared in the demonstration theatre on several occasions, so that all who were present could appreciate how the diagnosis was being worked out. Those students who had examined the patient were invited to be present at the operation, so that they would see for themselves what was found. The pathological material was shown on the following morning to the same class and was freely discussed. Later on the histological preparations were explained, and from time to time the patient was brought into the theatre so that the progress of the case might be observed by the same students. After recovery patients were brought back to the clinic so that the after-results might be demonstrated, and if unhappily death took place, then the organs from a post-mortem examination were similarly demonstrated. The whole idea was to preserve continuity, and no plan could be more likely to give a thorough grounding in surgery. That, I am sure, was also Macewen’s aim, and I agree with the present holder of the Regius Chair [Professor Archibald Young] when he says that Theodore Kocher was undoubtedly his model.<sup>218</sup>

Kocher, like Macewen, also was keen to use photographs and woodcuts in his publications.<sup>219</sup> Some of the photographs which were once part of Kocher’s clinic may be found among collections at the Inselspital University Hospital in Berne.<sup>220</sup>

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preparations. Macewen ordered these items on 25<sup>th</sup> February 1893). Wm. Martin and Co. were located on 67 West Nile Street. Macewen also ordered 1 skeleton, ‘Tramond’s (Paris) preparation’. On 17<sup>th</sup> February 1893, ‘man, complete, for Luxations, box and packing, freight from Paris. £14. 82.’ RCPSG10/Box1B, File 32.

<sup>217</sup>Turner, G.-G. (1939) *The Macewen Outlook in Surgery*, 25-26.

Emil Theodor Kocher (1841-1917) was a Nobel Prize winner, and pioneer in thyroid surgery. See, for example, Boschung, U. (1991) *Theodor Kocher 1841-1917* (Bern: Verlag Hans Huber). Kocher also visited Macewen in Glasgow, they were photographed together in his operating theatre at the WI. See for example DC79/177-178.

<sup>218</sup>Turner, (1939), 25-26.

<sup>219</sup>See for example: Kocher, T. (1895) *Text-Book of Operative Surgery* (London: Adam & Charles Black). This first edition however, contains numerous woodcuts, but only a handful of photographs.

<sup>220</sup>Prof. Dr. Urs Boschung, Medizinhistorisches Institut der Universität Bern. (Pers. Comm. 31.7.00).

Arguably Macewen constructed his 'own museum'.<sup>221</sup> Although he was not unique in this venture, Macewen's dedication and degree of involvement in the upkeep of his collection of photographs, casts and specimens is remarkable. He preserved the 'continuity of the patient' via photographic portraits, casts and specimens, thus merging the laboratory, operating theatre and classroom. Some of Macewen's contemporaries were unhappy with his 'individualist approach'. Such an approach, his detractors argued, resulted in him neglecting to leave a school for his successors.<sup>222</sup> However, Macewen's successors overlooked their visual and cultural inheritance.

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<sup>221</sup>Macewen used the phrase 'My own museum', amongst his financial accounts, RCPSG10/Box1B, File 32.

<sup>222</sup>Macewen's successor to the Regius Chair, Archibald Young, was one of Macewen's critics in this respect. See for example, Young, A. (1926) *Sir William Macewen: An Oration* (Glasgow: Jackson, Wylie).

## **Chapter Seven: Conclusions**

Nineteenth-century clinical photographs are becoming increasingly accessible to researchers through on-line archives, library web sites and touring exhibitions.<sup>1</sup> Nevertheless, only a few historians of medicine have fully engaged in image-based research; this is due, in part, to problems of nomenclature. Few researchers have differentiated between clinical and medical photographs. In this thesis I have used the term clinical photography to refer to images of patients, their body parts and specimens. I have argued that clinical photography is distinct from medical photography. The latter is a broad term that includes clinical photographs, as well as those of psychiatric subjects, ward scenes, doctors and so on.

Histories of medical and clinical photography have been incorporated into general histories of photography. However, in this context, the history of clinical and medical photography is often represented to us by a few 'signature images', such as Dr Hugh Welch Diamond's psychiatric portraits or G.B.A. Duchenne's analysis of facial expressions.<sup>2</sup>

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<sup>1</sup>See for example, the National Library of Medicine, 'Images From the History of Medicine', <http://www.wihm.nlm.nih.gov/> (1.10.02); Stanley Burns Archive of Medical Photography, <http://www.burnsarchive.com/archive/medical.html> (4.7.02.). Burns advertises stocks of images, publications and an exhibition creation and rental service.

<sup>2</sup>As previously mentioned in Chapter One, see Edwards, E. (2001) *Raw Histories: Photographs, Anthropology and Museums* (Oxford: Berg), page 131.

On the other hand, historians of medical photography have been keen to find and describe the ‘first’, often isolated, examples of clinical photography, such as D.O. Hill and R. Adamson’s image of goitre, taken in 1847.<sup>3</sup>

This contrasts with another approach, which strings together a series of images in order to create and represent the history of clinical photography as a seamless chronological narrative, exemplified by the works of Renata Taureck, Kathy McFall, Jacques Gasser and Stanley B. Burns.<sup>4</sup> In their works, images from dermatology, surgery and psychiatry are presented side by side.

In this thesis I have argued that each of the medical ‘disciplines’ may have its own visual prehistory, iconography, influences and development. Both isolated images and the ‘stringing’ approaches disconnect clinical photographs from their local contexts of production, circulation and use. The contextual approach addresses many of these issues. Mike Barfoot and Alison Morrison-Low were amongst the first to advocate this approach in their study of late nineteenth-century clinical psychiatric photographs.<sup>5</sup> Thus, in this thesis I have explored the local visual and textual contexts in which late nineteenth-century Glasgow clinical photographs were produced, circulated and used. And this contemporary information is crucial to our overall understanding and interpretation of nineteenth-century clinical photographs.

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<sup>3</sup>Wilson, G.M. (1973) ‘Early Photography, Goitre, and James Inglis’, *British Medical Journal*, II: 104-105.

<sup>4</sup>Taureck, R. (1980) *Die Bedeutung der Photographie für die Medizinische Abbildung im 19. Jahrh* (Feuchtwangen : Alleinvertrieb, C.-E. Kohlhauser); Gasser, J. & Burns, S.B. (1991) *Photographie et Médecine 1840-1880* (Lausanne: Bibliothèque Nationale Suisse); McFall, K. (1995) ‘A Critical Account of the History of Medical Illustration’ (M.Sc. Thesis), College of Medicine, University of Wales, 1-58.

<sup>5</sup>Barfoot, M. & Morrison-Low, A.D. (1999) ‘W.C. McIntosh and A.J. Macfarlan: Early Clinical Photography in Scotland’, *History of Photography* 23: 199-210.

In addition I have endeavoured to take an interdisciplinary image-based approach, using ideas derived from the histories of medicine, photography, art and visual culture. I have utilised Martin Kemp's theory of 'border information' to reconstruct aspects of William Macewen's photographic practices at the Glasgow Royal Infirmary (GRI) and later at the Glasgow Western Infirmary (WI).<sup>6</sup> Moreover, inspired by the photographic narratives of Michael Lesy and John Berger for example, I have explored alternative ways of integrating and presenting the results of image-based historical research.<sup>7</sup>

This research has focused on late nineteenth-century clinical photography in Glasgow. The images studied were found in five interrelated contexts: contemporary popularised photography; the *Glasgow Medical Journal (GMJ)*; the case notes and pathological reports of the WI and the Royal Hospital for Sick Children, Glasgow (RHSC); the Private Journals (PJS) of Dr William Macewen; and his collection of clinical photographs.

The main argument advanced in this thesis is that, in Glasgow from the late 1870s onwards, clinical photography was no longer the domain of professionals. Their work was, on the whole, superseded by photographs taken by surgeons, House Surgeons, Resident Assistant's and medical students within the context of the hospital.<sup>8</sup> This process was, in part, facilitated by advances in photography, perhaps most notably the introduction of the dry-plate during this

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<sup>6</sup>Kemp, M. (1997) 'A Perfect and Faithful Record: Mind and Body in Medical Photography Before 1900', in A. Thomas & M. Braun (eds.) (1997) *Beauty of Another Order: Photography in Science* (London: Yale University Press), 120-235.

<sup>7</sup>Lesy, M. (1973) *Wisconsin Death Trip* (London: Allen Lane); Berger, J. & Mohr, J. (1982) *Another Way of Telling* (London: Writers & Readers Publishing).

<sup>8</sup>Only on rare occasions does it seem that a professional photographer was brought in to the hospital to photograph patients, and this is usually remarked upon.

period. As a result, photographic equipment and materials became increasingly cheap and easier to use. Although the popular formats of the *carte-de-visite* and the cabinet card were used for clinical purposes, these were on the whole replaced during the 1880s, by a similar, but larger format called the card specimen, with case notes written on the verso. The content of many of these images, however, displays a synthesis of the clinical and contemporary portrait conventions.

Chapter Two of this thesis provided an account of popularised photography in Glasgow during the mid-to-late nineteenth century. It was during the 1870s that clinical photography was, on the whole, in the hands of the professional studio photographers. On most occasions, however, the patient/specimen, and perhaps the surgeon, would be required to visit the photographic studio. The surgeon would, no doubt, have been involved in orchestrating the final composition of the image, and paying for the privilege. The clinical photographs produced in the popular formats such as the *carte-de-visite*, cabinet card and the stereograph, were, however, a form of currency that was used for a variety of teaching and research purposes.<sup>9</sup>

Joseph Lister may have employed the services of a professional studio photographer in order to take stereographs of his case of caries of the wrist in the mid-1860s. However, he also took advantage of the photographic skills of one of his medical students, O.D. Marriott. As a result Lister's patient was photographed in the GRI, rather than having to visit a photographic studio. Two of Marriott's photographs were transposed into engravings when they were published accompanying Lister's article entitled 'Caries of the Wrist', which appeared in

*The Lancet* in 1865. It was important, however, for Lister to alert the reader that he was in possession of the original photograph(s).<sup>10</sup> Superimposing a copy of the published engraving over the photograph, one can see not only the process of selection from the original, but also the completion of the published image. [1:50; 2:51; 3:53; 4:54]

Some Glasgow medical men were quick to recognise and take advantage of the advances in photography from the 1870s onwards. Thus, by examining a selection of photographs that were published in the *Glasgow Medical Journal* (*GMJ*) over the next two decades one can see the transition from professional studio clinical *carte* to photographs taken by medical men. One also sees the dissemination of photographs taken by medical men into a greater number of contexts including the M.D. theses, ward journals and pathological reports. Traditional techniques such as the before and after shot, were coupled with new ways of conveying clinical information visually, such as mapping and dermatography.<sup>11</sup> [17:91] The latter were the result of medical men taking time to experiment with photography within the context of the hospital.

Hospital ward journals and pathological reports were amongst the new contexts for clinical photographs. From the mid-1880s, some of Glasgow's House Surgeons and Resident Assistants of the WI and RHSC began to take photographs for inclusion in the hospital's ward journals and pathological reports. This practice has been exemplified by the work of the following House Surgeons,

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<sup>9</sup>For example, in Chapter Two, [9:65].

<sup>10</sup>Lister, J. (1865) 'On Excision of the Wrist for Caries', *The Lancet*, I: 308-312, 335-338.

<sup>11</sup>Mapping would be used to convey clinical information visually, even though this has been gained through non-visual diagnostic techniques, such as palpation and auscultation.

Lewis R. Sutherland, John H. Teacher at the WI and George Henry Edington at the RHSC, discussed in Chapter Four of this thesis.

Sutherland, Teacher and Edington began photographing patients and specimens during the 1890s. They appeared to have exercised a degree of autonomy, in that they could photograph patients in a variety of ways, such as in front of a blackboard [22:107], or suspended in a harness. [67:143] Chapter Four contains a variety of narratives, for example, those of Sutherland's work in the WI ward journals from the early 1890s, and likewise Edington's at the RHSC. In addition, a series of photographs from the WI's pathological reports on specimens and post-mortem examinations have been presented according to conventions, such as cropped shots and portraits.

I have argued that these photographs were a form of currency, circulating between ward journals and pathological reports within the WI and the RHSC. [49-50:128] It appears that clinical photographs accompanied specimens, for example, from the ward or operating theatre to the pathology department. Many of the photographs were used to cross-reference visually a case from the ward journal to the pathology report, for instance. We can see evidence of the pathologist's gaze at work in the pathology reports, represented by shots taken before treatment, but not after.

There is little written evidence regarding the detailed practice of photography in the WI or RHSC minute books or annual reports.<sup>12</sup> There are a

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<sup>12</sup>Even though photographs were taken within the hospital, and perhaps using its (or the surgeons' or house-surgeons') materials, equipment and facilities.

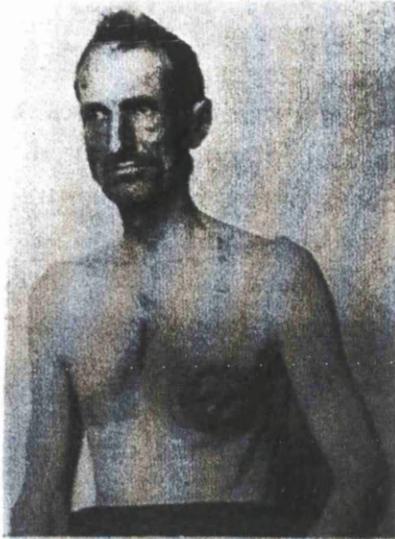


FIG. 332.  
Carcinoma of Male Breast.

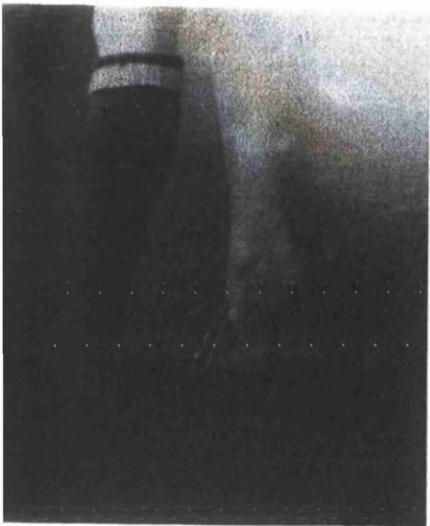
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few textual clues that refer to the existence of in-house darkrooms. We can see within the images that patients were photographed in private or reception rooms or operating theatres.

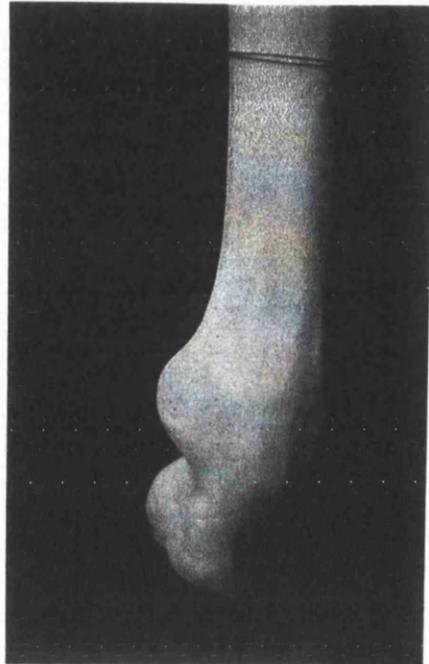
William Macewen's photographic practice at the GRI, discussed in Chapter Five, had a different expression from that of Sutherland, Edington and Teacher. Although Macewen took photographs of patients and specimens in the GRI, WI and RHSC, they were, on the whole, not intended to feature in the respective hospital's ward journals or pathological reports.

Macewen took clinical photographs for insertion into a series of his PJS, which he began during the late 1870s while surgeon to the GRI. These photographs contain visual clues to Macewen's surgical and photographic practice. For example, Macewen photographed patients in his operating theatre at the GRI. These photographs are important because they contain clues, such as the dark coloured coat, which suggest that his transition to asepsis may have been later than previously thought. [103-104:208]

During the early 1880s Macewen began to duplicate some of these cases for use in a teaching collection. The format of Macewen's collection of clinical photographs was a larger version of the *carte-de-visite* or cabinet card, with a clinical content. (i.e. the card specimen). This format has parallels with other collections, for example the Narath-Lameris collection in Utrecht.



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Macewen's collection of clinical photographs (CC) developed over a period of thirty years or so, and covers his transition from the GRI to the WI in 1892. Many of the basic aspects of William Macewen's photographic practice remained constant. For example, in both the GRI and WI, patients were photographed in his operating theatre, and there is little change regarding the way certain diseases were photographed, for example, carcinoma of the breast was usually represented, not by a narrowly cropped shot, but by a portrait from the waist up.

There are textual clues that suggest, for William Macewen, photography was a medium of truth. He himself wrote that a photograph could 'represent the form' or 'location' of growths, for instance. Macewen's dedication and commitment to photography is clearly evident. Although Macewen himself rarely made explicit references to photography, his son and former colleagues provide important clues to his practice. There is little textual evidence, however, relating Macewen's photographic encounters with patients. Many of the patients photographed were the deserving poor, but, there are a handful of private patients too.<sup>13</sup> There is little difference in the way pauper and private patients were photographed, or the uses that the images were put to. Both pauper and private patients appeared, without anonymity, in Jack Macewen's publications. While the photographs taken at the GRI were more celebrations of surgical success, Macewen's dedication to teaching and comparative pathology are exemplified in the later photographs taken at the WI. Around this period, Macewen delegated

some of this work to son, Dr John A.C. [Jack] Macewen, who in turn, changed the character of the collection, taking highly composed portraits, which may display his artistic training. In some of Jack Macewen's photographs, the pathology appears almost incidental to the final image.

I have reconstructed segments of William Macewen's surgical demonstrations of 'Tumours', 'Hernia' and 'Deformities'. Using his original scheme of classification and the numerical and lettering systems, I have represented segments of three surgical demonstrations. Thus, one can see not only the importance of comparative narrative of pathology, from the indistinct lesion to the large growth, for example, but also the establishing of visual association between the photographic portrait and the specimen. Collecting photographs, casts and specimens was common practice among many surgeons during the mid-to-late nineteenth century. These collections were not only invaluable for teaching, through observation, but also a visual testimony to their individual achievements.

In this thesis I have attempted to balance images and text. Much of this research has been achieved by means of patient - facial - case - recognition. Some cases have a long life. For example, some photographs taken during the 1890s [181-183:278] were still in circulation thirty years later.<sup>14</sup> [283:368] Similarly, a case could be represented using a variety of media, not only photographs, but

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<sup>13</sup>See, for example, a private patient, photographed at home HB14/19/62, but who also appeared in Jack Macewen's surgical textbook. See, Macewen, J.A.C. (1922) *Text Book of Surgery for Students and Practitioners* (Glasgow: Maclehose, Jackson & Co.), Fig. 324, page 387.

<sup>14</sup>Macewen, J.A.C. (1922) *A Text Book of Surgery*, 391.

also drawings and plaster casts.<sup>15</sup> [284-286:370] I have produced a series of chronological, convention and contextual narratives of late nineteenth-century Glasgow clinical photography. While some narratives are attempts at reconstructing ways of seeing (for example, following a case from one source to another), others are my presentations, of conventions and the works of individuals for example.

This case study in the history of late nineteenth-century clinical photography in Glasgow has endeavoured to be an exercise in what Hayden White described as *historiophoty*.<sup>16</sup> White describes this as 'the representation of history and our thought about it in visual terms'.<sup>17</sup> *Historiophoty* may be considered more applicable to cinematic sequences, which predicate as phrases or sentences. Nevertheless, White suggests that it can be applied to still photographs which are accompanied by captions. The contextual approach, which uses local and contemporary images and texts associated with clinical photographs, can be considered as an extended caption. I have represented my thoughts and ideas concerning the history of Glasgow clinical photography through a series of contextual visual narratives. I hope other historians of medicine will explore these and the other rich and varied visual sources on offer.

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<sup>15</sup>[284:370] Talipes, n.d., HB14/19/69; [285:370] Talipes, n.d., HB14/19/69, (photograph of unpainted cast); [286:370] Photograph taken of the painted cast, by the present author, in Macewen's collection, held in the GRI Pathology Museum, 2001.

<sup>16</sup>White, H. (1988) 'Historiography and *Historiophoty*', *American Historical Review*, **93**: 1193-1199.

<sup>17</sup>*Ibid.* 1193-1199.

## ***Appendix One: Tracing and Drawing Pathology at the Glasgow Western Infirmary***

Dr Joseph Coats (1846-1899) and his colleagues in the Glasgow Western Infirmary's (WI) Department of Pathology routinely made detailed drawings, sketches and tracings of their observations for inclusion in the pathological reports.<sup>1</sup> These images are worthy of special attention, as they embody the rich visual nature of pathology, which Coats embraced. However, little work has been done on these forms of pathological illustration. Tracings and drawings which featured in the WI's pathology reports from 1876 were not replaced with the introduction of photography from 1891, but co-existed, side by side in the one report.<sup>2</sup>

### ***Dr Joseph Coats***

Joseph Coats was born in Paisley in 1846.<sup>3</sup> At the age of fifteen he matriculated at Glasgow University, and for the first two years he took classes in Greek, humanity and logic. He then went on to study anatomy, operative surgery under

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<sup>1</sup>To what extent image making was a routine activity in pathology is unclear. Coats received medical training on the Continent. He also felt it was important to maintain links with clinical medicine.

<sup>2</sup>Hence I have discussed the tracings and drawings in an appendix, rather than integrating them in a photographic narrative. Ludmilla Jordanova however, argues that it is that it is 'artificial to separate paintings from photographs', as they are not separate in the mind of the practitioner, see Jordanova, L. (1990) 'Medicine and Visual Culture', *Social History of Medicine*, 3: 89-99

<sup>3</sup>See Coats, O.M. & V.T. Coats (1929) *Dr & Mrs Joseph Coats: A Book of Remembrance Compiled by Their Two Daughters* (Jackson: Wylie & Co.).

Lister, physiology, midwifery and materia medica. Coats graduated with MB honours in 1867, at the age of twenty-one.<sup>4</sup>

In May the following year, he was appointed assistant to one of his former teachers, William Tennent Gairdner, Regius Professor of Medicine at the University and consultant to the GRI.<sup>5</sup> In 1865, Gairdner began the systematic teaching of pathology, which had previously been undertaken by Andrew Buchanan, Professor of the Institutes of Medicine. Importantly, however, it was Gairdner who requested that his lectures in pathological anatomy be illustrated with reference to post-mortem demonstrations.<sup>6</sup> Previously Gairdner had been 'promoted from pathologist to physician in the Royal Infirmary of Edinburgh in 1853' before moving to Glasgow in 1862.<sup>7</sup> During his time in Edinburgh, Gairdner employed the services of a water-colourist, named Neil Stewart, to paint a series of pathological studies.<sup>8</sup> These, W.L. Yule argues in his article entitled 'In Search of a Medical Artist', Gairdner brought with him on his move from Edinburgh to Glasgow's GRI.

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<sup>4</sup>When Coats was a medical student the pathology was divided up between surgery, midwifery and so on. After 1861 students of medicine at the University of Glasgow were required to attend lectures on pathology or pathological anatomy, this being the only subject not taught by a professor. After graduating he attended classes in moral philosophy and chemistry. William Macewen graduated the following year, and it seems likely that he and Coats met whilst medical students. The GUABRC hold a few documents relating to Coats, including his class tickets, see Ref. DC 27.

<sup>5</sup>It was due to the combined efforts of Gairdner, Coats and Professor John G. M'Kendrick that Glasgow's first Chair of pathology was to be founded and endowed in 1894.

<sup>6</sup>Specimens also served another function for Gairdner and Coats. Both were member of medical societies, and here specimens were used to illustrate lectures. For example, by 1867 the Glasgow Medical-Chirurgical Society regularly showed pathological specimens. See Gairdner's request of the Faculty of Medicine to the Senate of Glasgow University, January 1865, GS4355.

<sup>7</sup>Yule, W.L. (1998) 'In Search of a Medical Artist', *The Lancet*, II: 806.

<sup>8</sup>Yule, (1998), 'In Search of a Medical Artist', 806. According to Yule there are a total of 63 watercolours. These were deposited in the Dundee Health Board Archive, along with some clinical photographs taken by Lewis R. Sutherland, although their current accessibility is in doubt (W.L. Yule, Pers. Comm., 2002).

Gairdner subsequently became Regius Professor of Medicine and Physician to the WI in 1874 and his course was duly advertised in the University of Glasgow's *Calendar* as being 'illustrated by diagrams and tables, hand-coloured drawings and photographs, etc., wax casts models and preparations of morbid Anatomy'.<sup>9</sup>

In 1868, Coats became an assistant to Professor Joseph Lister at the GRI.<sup>10</sup> It was while working with Lister that Coats began to plan a period of study in Germany, which he believed would qualify him to provide a lecture course for undergraduates in Glasgow. Lister may have directly influenced his decision as Coats recalled 'Lister is sure the University would recognise me.'<sup>11</sup> In his student days, Lister too had travelled to the Continent in order to see some of the most celebrated medical schools.<sup>12</sup>

Coats wished to improve his knowledge of recent advances in pathological anatomy. He obtained leave of absence from the Infirmary and spent some months studying physiology in Leipzig under Professor Ludwig.<sup>13</sup> Here Coats undertook original research in relation to the heart, published in 1870.<sup>14</sup> In April, the following year he attended an undergraduate course in pathological anatomy

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<sup>9</sup>*The Glasgow University Calendar for the Year 1893-94* (Glasgow: James Maclehose, 1893), 71.

<sup>10</sup>Coats may have been aware of Macewen's presence at the GRI, as during 1868 Macewen was Lister's dresser.

<sup>11</sup>Coats & Coats (1929) *Dr & Mrs Joseph Coats*, 12.

<sup>12</sup>Whilst on honeymoon, Lister and his wife visited medical schools on the Continent, including a visit to Leipzig in order to see the Ophthalmologist Professor Reute. See Godlee, R. (1917) *Lord Lister* (London: Macmillan & Co.), 56.

<sup>13</sup>Carl Ludwig (1816-1895) was the Chair of Physiology in Leipzig from 1865. His laboratory was divided into three parts: physical, chemical and anatomical.

<sup>14</sup>'Obituary, Joseph Coats', (1899) *British Medical Journal*, I: 317-319.

under von Recklinghausen in Würzburg.<sup>15</sup> Coats's experiences in Germany furthered his career, as he gained practical knowledge and experimental experience, coupled with techniques on how to teach pathology.

While in Germany, Coats learned that the office of the Pathologist at the GRI had become vacant. He successfully applied and took over the post from October 1870. This he supplemented with demonstrations and practical classes, and therefore it was in Coats's interest to keep the museum collections replenished. Teaching also gave Coats the opportunity to put into practice some of the techniques which he had learned during his trips to Germany.<sup>16</sup> He recalled:

It would have been almost madness on my part to have set up as a teacher of pathological anatomy without first having seen it taught as I have now seen it. It has never been taught in Glasgow and it was absolutely necessary that I should have some model after which I could shape my course and this I thoroughly obtained in Würzburg.<sup>17</sup>

In addition, Coats was curator of the GRI Pathology Museum.<sup>18</sup> A colleague recalled that:

[D]uring his tenure of office at the Royal, he laboured at morbid anatomy and histology with unremitting zeal as his report books, now preserved in the laboratory, abundantly testify. The museum also received his careful attention and besides adding many specimens to its shelves, he published, in 1872, the first printed catalogue of the collection.<sup>19</sup>

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<sup>15</sup>This course was divided into three parts: 'demonstrative, microscopic and general pathological anatomy', see Coats & Coats, (1929) *Dr & Mrs Joseph Coats*, 20. Friedrich Daniel von Recklinghausen (1833-1910), published on a wide range of subjects including blood circulation, connective tissue, spina bifida, rickets and osteomalacia.

<sup>16</sup>Coats & Coats, (1929) *Dr & Mrs Joseph Coats*, 48. Coats taught pathological anatomy at the University, but technically he was an assistant to Andrew Buchanan, Professor of the Institutes of Medicine.

<sup>17</sup>Ibid.

<sup>18</sup>Founded in 1852.

<sup>19</sup>Coats & Coats, (1929) *Dr & Mrs Joseph Coats*, 49. In 1873 Gairdner and Coats founded the Glasgow Pathological and Clinical Society. Some of the lectures were illustrated by reference to specimens.

Coats continued to publish the results of his research. Some of his research publications were illustrated with drawings of pathological specimens, created with the aid of a camera lucida.<sup>20</sup>

In 1874, Coats resigned from the GRI to become the first pathologist at the newly built WI.<sup>21</sup> It was not until 1894 that Coats would be installed as Glasgow University's first Professor of Pathology. L.S. Jacyna in his distinguished study of the 'Impact of Pathology on Surgical Diagnosis at the Glasgow Western Infirmary, 1875-1910', was the first to point out that Coats, as pathologist to the WI, was 'more than a Keeper of the Dead'.<sup>22</sup> In 1876, 'the department's first full year of operation ... 130 post-mortem examinations were performed ... along with the analysis of 43 morbid products'.<sup>23</sup>

By 1877 Coats had commenced the teaching of practical pathology to a small class of four students.<sup>24</sup> However both equipment and accommodation were limited. There was a small room for pathology at end of the museum, which was

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<sup>20</sup>Coats, J. (1872) 'Structure of the Myxoma and Sarcoma with Illustrative Specimens', *Glasgow Medical Journal*, 4: 35-52. In 1873 Coats and Gairdner founded the Glasgow Clinical and Pathological Society and specimens were regularly shown to illustrate lectures.

<sup>21</sup>Coats & Coats (1929) *Dr & Mrs Joseph Coats*, 48. According to J.R. Anderson's account of the history of the WI, Coats 'was listed in the university calendars from 1871 as assistant lecturer in pathology under Professor Andrew Buchanan, Institutes of Medicine', see Anderson, J.R. (1994) *Pathology at The Western Infirmary: The First Hundred Years 1884-1894* (Glasgow: University of Glasgow), 11.

<sup>22</sup>Jacyna, L.S. (1988) 'The Laboratory and the Clinic: The Impact of Pathology on Surgical Diagnosis in the Glasgow Western Infirmary, 1875-1910', *Bulletin of the History of Medicine*, 62: 384-406.

<sup>23</sup>Ibid. Jacyna's study concluded, however, that in the diagnosis of breast cancer, 'the pathologist was important, yet he remained incidental to the clinical process. His opinion was sought only after the crucial decisions had been made on purely clinical criteria,' see Jacyna, L.S. (1988) 'The Laboratory and the Clinic: The Impact of Pathology on Surgical Diagnosis in the Glasgow Western Infirmary, 1875-1910', 391.

<sup>24</sup>Coats & Coats, (1929) *Dr & Mrs Joseph Coats*, 53.

Coats's workroom.<sup>25</sup> In addition 'there was a laboratory for pathological chemistry and a small room for photography was located in the long apartment which was over the museum'.<sup>26</sup>

In 1891, Coats became a lecturer in Pathology at the University of Glasgow. Around this time he sent a number of colleagues a memo, along with one to the University Court, regarding the use of lantern slides and projectors.

The memo states that in order:

To enable us - and other teachers in the University- to avail ourselves of this means of illustrating lectures, it is essential that provision should be made for the production of slides from book illustrations, photographs natural objects & c., at short notice and in very considerable numbers. This requires the employment of a photographic operator always at hand ... We should respectfully ask the University Court to make provision for the production of slides, by fitting up a small room with tables and other fittings necessary for the work.<sup>27</sup>

In the following year the University Court responded by employing a photographer, W.H. Lockhart.<sup>28</sup>

Coats impressed upon his students the close relationship between clinical medicine, pathological anatomy and physiology.<sup>29</sup> According to his colleague, William Tennant Gairdner:

Nor was the clinical interest ever lost sight of by Dr. Coats, early in his career he had seen a great deal of practice in the wards; and in the Clinical and Pathological Society, of which he was one of the original members, the habit of regarding pathological factors from the clinical side was kept

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<sup>25</sup>It measured approximately 12 feet square.

<sup>26</sup>What kind of photographic activities were carried out here remains unclear. One of Coats's descendants, David Coats, stated that he had inherited Joseph Coats's plate-camera, which as far as he knew had been used for family snapshots (D. Coats, Pers. Comm., 2000).

<sup>27</sup>University of Glasgow, Court Meeting Papers, 1891, GUABRC, C1/4/163.

<sup>28</sup>University of Glasgow, Court Meeting Papers, 1891, GUABRC, C1/4/69.

<sup>29</sup>Coats & Coats, 52. One can gain an impression of Coats's practice by looking at his ward journals. Pulse tracings and temperature charts accompanied many cases, rather than sketches or drawings.

up, the greatest pains being taken to make the reports, and also the preparations in the museum representative of both aspects of knowledge.<sup>30</sup>

Coats was also Keeper of the WI's Pathology Museum. In 1885, he was Editor of the Museum's catalogue. In the Preface he re-iterated the importance of co-operation between the ward and the laboratory, recording that:

The Museum is connected with and derives its material from a wide field of clinical observation, and a large school of medicine. It has been the editor's endeavour, therefore, on the one hand, to keep up in the Catalogue the connection between preparation as preserved and the case as observed in the wards during life, and on the other hand, to make the Museum available as a means of teaching. It will be seen in this way that the Museum aims at being something more than an appanage of the Pathological Department.<sup>31</sup>

This ethos pervaded all aspects of Coats's activities in the laboratory, museum and classroom. Moreover, he was also physician to the out-door department of the WI, and later visiting physician. Some of the cases entered into Coats's ward journals contain graphic media, such as pulse tracings.<sup>32</sup>

Another of Coats's duties was to write reports on post-mortem examinations and accounts of specimens. A former student recalled that 'Dr Coats had a wonderful memory, which could not but be remarked upon by us as we watched a post-mortem, while examining one organ he would at the same time repeated to his clerk for insertion in the journal a most minute and detailed description of the organs previously examined and already laid aside.'<sup>33</sup> It is

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See also, Coats, J. (1900) *Manual of Pathology*, L.R. Sutherland (ed.) (London: Longmans, Green & Co.).

<sup>31</sup>Coats, J. (1885) *Catalogue of the Pathological Museum of the Western Infirmary, Glasgow* (Glasgow: MacDougall), Preface, pages unnumbered.

<sup>32</sup>When Coats was Visiting Physician to the WI, during the early 1890s, he was in charge of Ward XI, see for example, WI Ward Journals, HH66/11/13-14.

<sup>33</sup>"Student. A." (1899) 'Professor Joseph Coats', *Glasgow University Magazine*, 11: 154.

evident that the journal was taken into the laboratory so entries could be written soon after the observations were made. At this point decisions were made to make sketches or to select tissues, organs or body parts for preservation. These would ultimately serve a pedagogic function. After preservation, specimens could be traced or drawn on paper and then the images were then inserted into the report. The pathological reports may also have been held in the wards as some volumes have labels on their covers which request that 'Assistants using this book, are requested to return it Before the Visit-hour'.<sup>34</sup> From 1876, some post mortem and specimen reports were accompanied by tracings and drawings.

### *Tracings*

Tracings were made exclusively of the brain or skull, and accompany post-mortem reports. The images were made on tracing paper, which show the outline and the basic anatomical features of the brain or skull, then the precise location of the pathology or trauma were highlighted in red or by hatching.<sup>35</sup>

Before a tracing could be made, the brain would be hardened and preserved, a process that may have taken a few days. If further destructive methods of investigation were to be employed, such as the cutting of sections for

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<sup>34</sup>See for example Volume 5, P5/1/5. These are pre-printed labels with 'Western Infirmary Pathological Museum' on the margins. They appear to be contemporary with the journal itself.

<sup>35</sup>From 1876 to 1890 a total of twelve post-mortem reports are accompanied by tracings of the brain or skull. For example in 1879 one of the journals included a breakdown of brain disease 'out of 1029 pathological examinations entered in the infirmary records since the opening of the institution there has been recorded 79 cases of disease of the brain and cerebellum (excluding injury by fracture of the skull or otherwise) a synopsis of which is given below: Cerebral haemorrhage (21), Cerebral softening (10), Tumour (14), Abscesses (4)', Ref. P5/1/3.

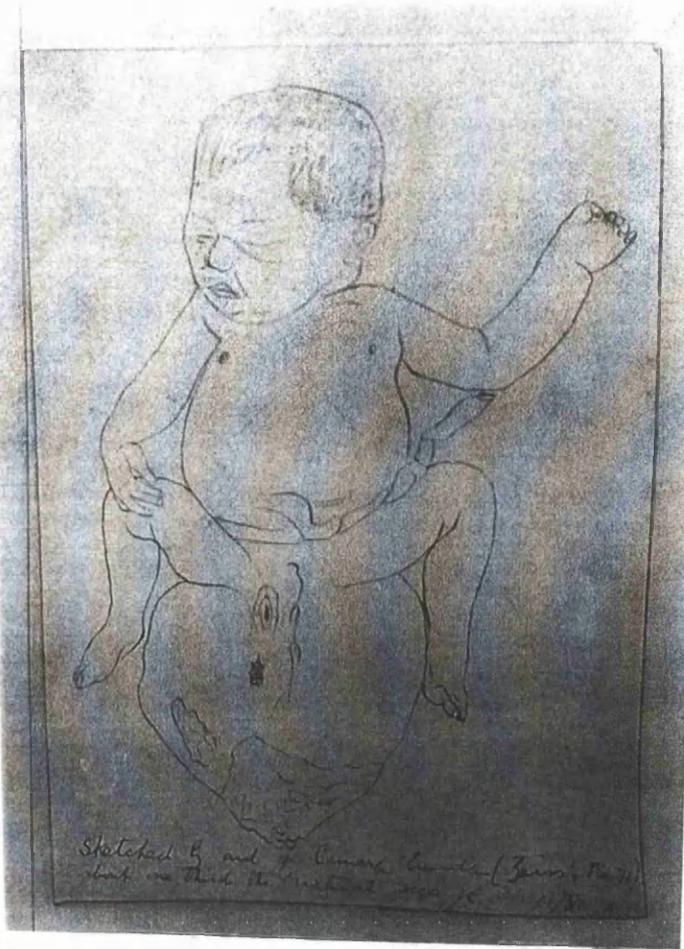
microscopic examination, the tracings would preserve a record of the external locations of the first observable signs of the lesion, for example. How the actual tracings were executed remains unclear, but they may have been made with the aid of a projection microscope, from the screen of which the viewed image was traced. Once the image had been traced, the paper was then pasted into the relevant pathology report.

### ***Drawings***

Detailed drawings accompany some post-mortem reports. Some of these drawings are more personalised, as they include details such as facial features. Coats utilised the camera lucida to aid the execution of both tracings and detailed drawings. Beneath one of his drawings Coats wrote ‘sketched by aid of Camera Lucida (Zeiss’s No. 71) about one third the natural size J.C. Dec. 13 ‘86’.<sup>36</sup>[287:283] In 1900, a year after Coats’s death, his former colleagues, Lewis R. Sutherland edited the third edition of his *Manual of Pathology*, which

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<sup>36</sup>‘Zeiss No. 71’, refers to the specific type of lens. Carl Zeiss began manufacturing microscopes and camera lucida lenses in Jena from 1846. His products were considered superior, and were no doubt expensive. Yet Coats managed to procure one for the Pathology Department. The firm produced catalogues of their products. See, for example, the catalogue entitled *Microscopes and Microscopical Accessories Manufactured by Carl Zeiss* (Jena: H. Pohle, 1885). See also David Hockney’s seminal work on the camera lucida, Hockney, D. (2001) *Secret Knowledge: Rediscovering the Lost Techniques of the Old Masters* (London: Thames & Hudson).



287



Fig. 96. — Congenital sacral teratoma.

288

included a photograph taken of this specimen.<sup>37</sup>[288:383] The specimen was preserved for the WI Museum.

Coats was keen to sign his work, a trend that was also used by some clinical photographers. Perhaps Coats's drawing skills were somewhat limited, yet by using this technology he could preserve the correct proportions and scale of the cadaver.<sup>38</sup>

Specimens were sent to the pathologist from the operating theatre and ward, in order to identify the nature of a growth, or to elaborate on the clinician's diagnosis by specifying the gross and histological features.<sup>39</sup> In such instances Coats and his colleagues would make a histological analysis and include a drawing of their findings in the pathological report, even though in some instances the operation had already been performed.<sup>40</sup> There are no photomicrographs in the WI Pathological Reports for this period. However, a note written by Coats, in 1893 at the end of a post-mortem report, described sections made of the cord [spinal?] and gave an instruction to 'see photos'.<sup>41</sup>

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<sup>37</sup>See Coats, J. (1900) L.R. Sutherland (ed.) *Manual of Pathology* (London: Longmans, Green), 239. The first edition of Coats's *Manual of Pathology*, published in 1883, contained three hundred and thirty nine illustrations, mainly woodcuts, see Coats, J. (1883) *Manual of Pathology* (London: Longmans, Green).

<sup>38</sup>A total of 8 detailed drawings are to be found in the pathological journals from 1891 to 1896. In some instances a lot of time and effort went into making these drawings, and many were used for publication purposes. For example a drawing included in the WI Pathology Report, No. 2259, 1890, P5/1/12, appears in the *Transactions of the Glasgow Pathological and Clinical Society*, (1892) 3: 245; in this instance the image was published with printed legends. In cases where the face was preserved techniques would be used, such as blurring, to obscure the identity of the individual in which details of the face have been obscured see Coats, J. (1900) *Manual of Pathology*, 54.

<sup>39</sup>Sketch of microscopic finding see Report 396, P5/1/3, Section Report 1979, Joint 2084. There are 20 sketches in total included in specimen reports, from 1878-90.

<sup>40</sup>PJ 396, P5/1/3.

<sup>41</sup>PJ 329, P5/1/16, case of Pernicious Anaemia. Report 592. In a few instances, surgeons made sketches of what they had seen during an operation, and sent it along with the specimen to the pathologist. For example, the surgeon, George Buchanan made a sketch of the precise location of

Tracings and sketches were used primarily used to show the reader the location of lesions, trauma or histological characters. As stated in the introduction, the tracings and drawings were not replaced by the introduction of photographs into the WI pathological reports from 1891. Tracings, drawings and photographs could co-exist side-by-side in the same report, each evidently fulfilling a particular function. From April, 1896, however, photographs and tracings ceased to be included in the WI pathological reports. From then on photographs were replaced by pre-printed and perforated 'stamps' of the upper torso, and brain, on which areas of pathological interest were marked.<sup>42</sup>

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a grape-seed he had found stuck in a patient's oesophagus. Other specimens were destined to be used in class examinations with the naked eye.

<sup>42</sup>Three years later, Coats was dead.

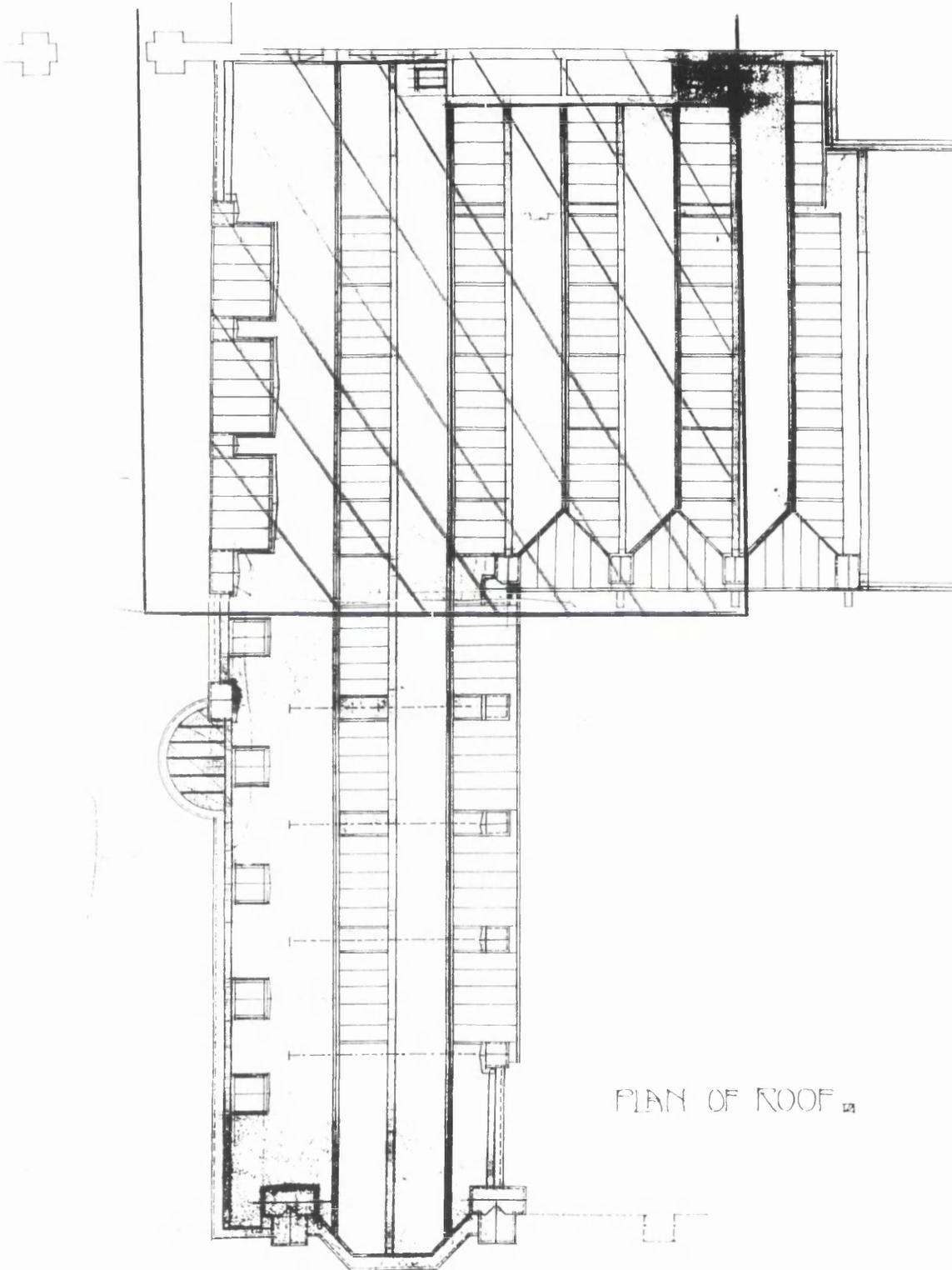
## Fractures and Dislocations (1)

1. Dislocation (Elbow)
  2. Fracture at upper epiphysis of humerus.
  3. Fracture of glenoid head of scapula
  4. Dislocation of humerus (pathological)
  5. " " shoulder (congenital)
  6. Subspinous dislocation of shoulder
  7. Subglenoid " " "
  8. Subcoracoid " " humerus
  9. Fracture of clavicle
  10. Dislocation of scapula
  11. Fracture of great trochanter
  12. Dislocation of jaw
- 

## Fractures and Dislocations (2)

1. Dislocation of Astragalus
  2. Fractured Tibia and Fibula
  3. Dislocation and Fractured Patella.
  4. Dislocation of knee
  5. " " Hip
  6. " " Thumb
  7. " " wrist
  8. Fractured wrist (Colles)
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GLASGOW UNIVERSITY EXTENSION  
PLANS OF NEW SURGICAL BUILDINGS



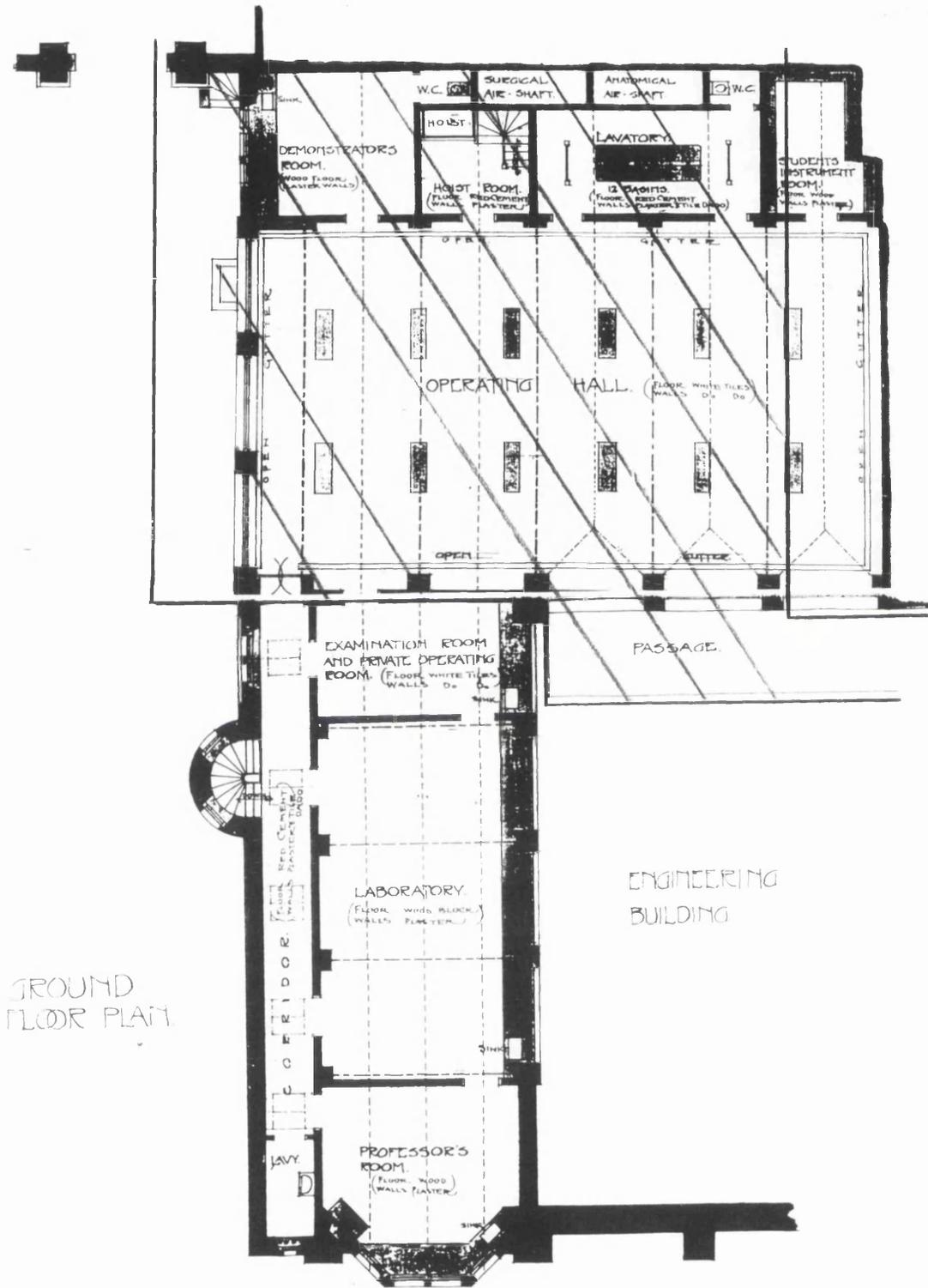
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# GLASGOW UNIVERSITY EXTENSION, PLANS OF NEW SURGICAL BUILDINGS.



GROUND FLOOR PLAN



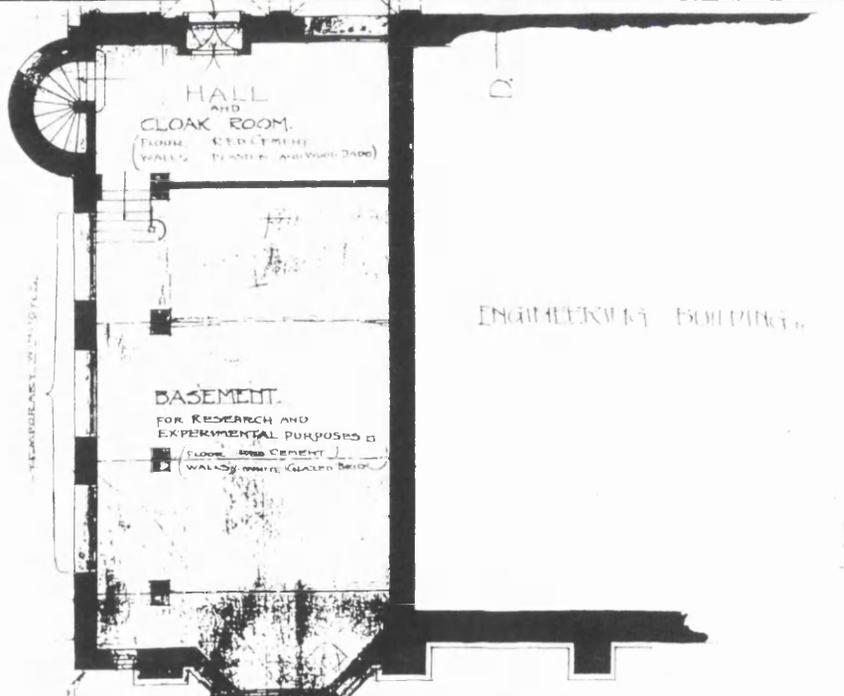
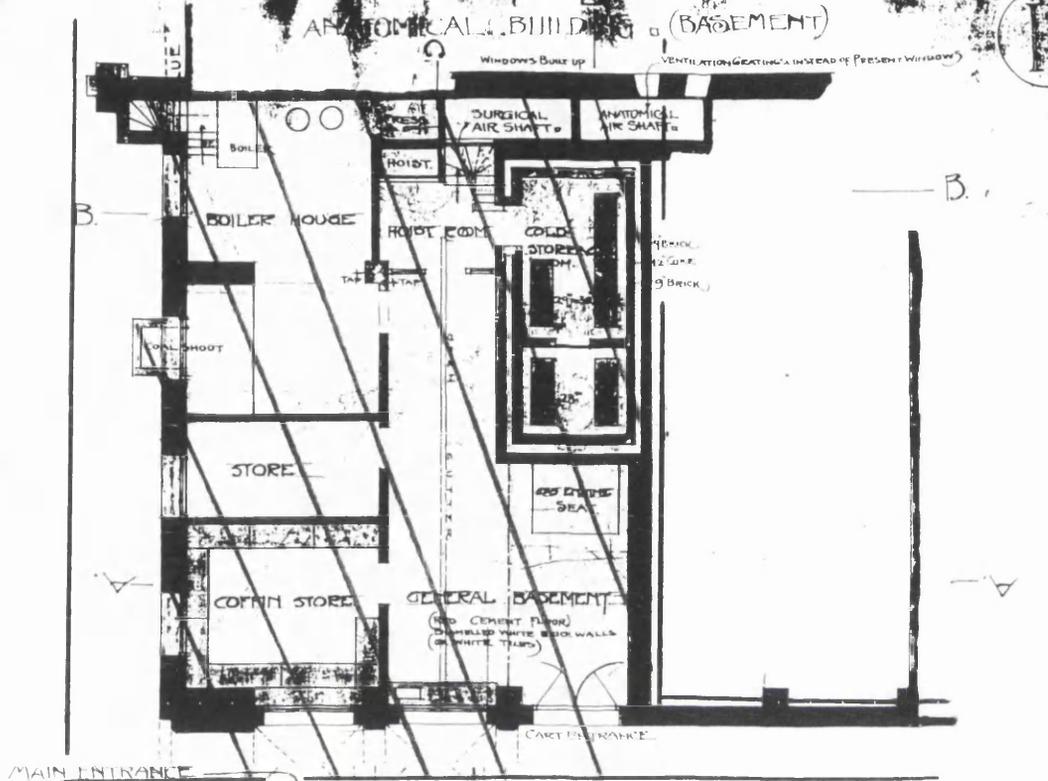
W. & A. ARCHITECTS & ENGINEERS LTD.

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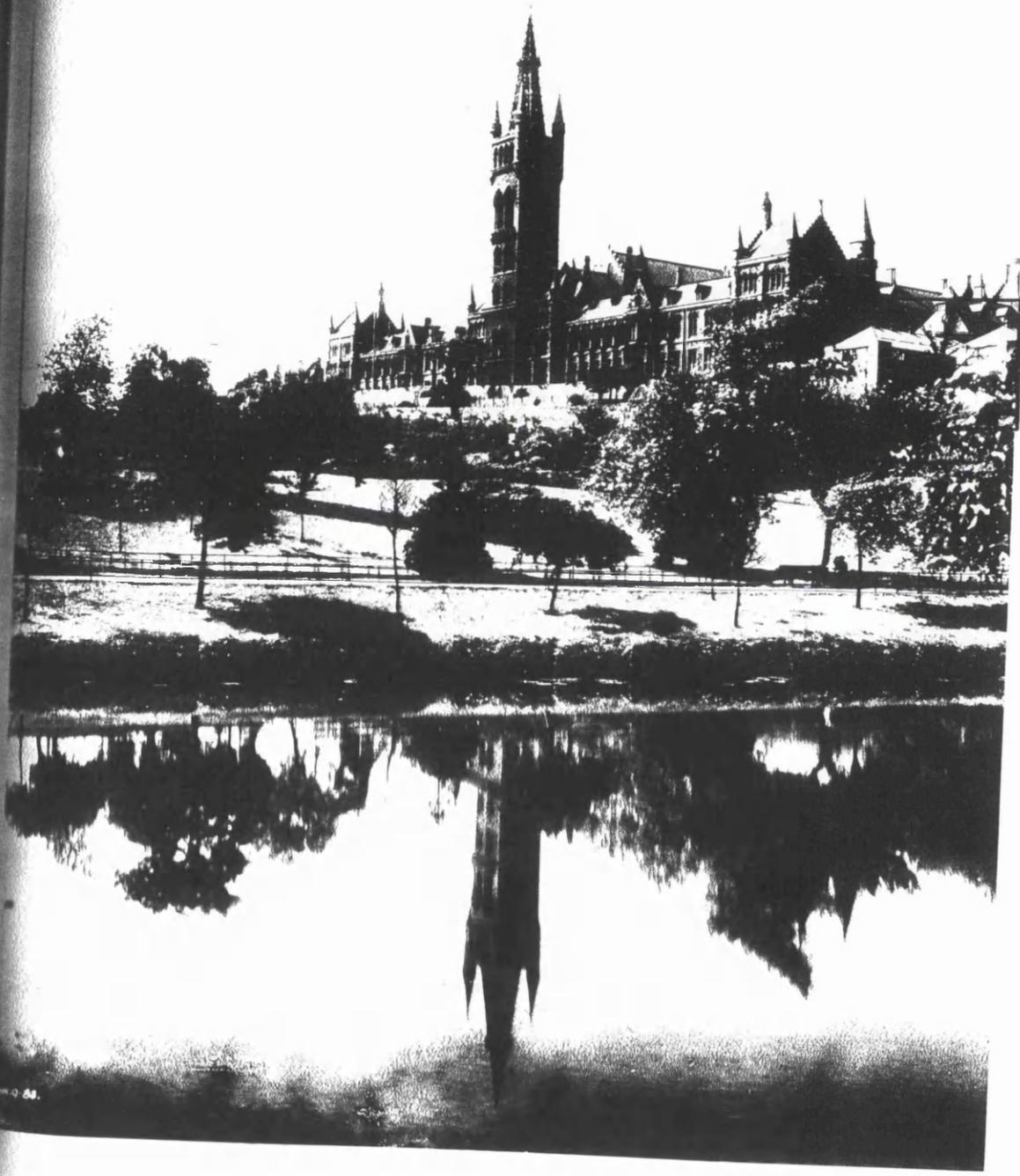
# GLASGOW UNIVERSITY EXTENSION

## PLAN OF NEW SURGICAL BUILDING

### ANATOMICAL BUILDING (BASEMENT)



*Handwritten signature:* James S. ...



## **Appendix Four: Medicine, Art and Photography**

In his book entitled *Techniques of the Observer*, published in 1996, Jonathon Crary argues that, during the early nineteenth century, there was a ‘rupture with Renaissance, or classical, models of vision and of the observer.’<sup>1</sup> This break, Crary suggests, eventually gave rise to realism. This was, however, not simply a shift ‘in the appearance of images and art works, or in systems of representational conventions ... but a massive reorganisation of knowledge and social practices’.<sup>2</sup> I shall test Crary’s hypothesis by comparing the poses in a selection of late nineteenth-century Glasgow clinical photographs with earlier and contemporary paintings, drawings and sculptures. It is hoped that this preliminary comparison will shed further light on the shift from classicism to realism.

From the Renaissance onwards the study of anatomy became an important element in both artistic and medical education. During this period a number of trends were established in the field of anatomical illustration, including animated skeletons, three-dimensional *écorchés*, flayed cadavers and flap anatomies.<sup>3</sup>

One of Nicolas Beatrizet’s drawings (1589), shows a pregnant woman both revealing and concealing her body. She is shown standing with her womb exposed and her arm hanging down to cover her genitals.<sup>4</sup> In this image, the woman’s right arm is raised to

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<sup>1</sup>Crary, J. (1996) *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (London: MIT Press), 3.

<sup>2</sup>Crary, *Techniques of the Observer*, 3.

<sup>3</sup>Artists working in a variety of subject areas produced these images. One of the most seminal works of this period were the drawings by Jan Stephan van Calcar for Andreas Vesalius, see Vesalius, A. (1543) *De Humani Corporis Fabrica* (Basel: J. Oporinus).

<sup>4</sup>Nicolas Beatrizet, ‘Tab. VI Libri III’ from *Valverde, La Anatomia del Corpo Humano*, 1589, reproduced in Petherbridge, D., Jordanova, L. (1997) *The Quick and the Dead: Artists and Anatomy* (London: South Bank Centre), 57.

conceal one breast, while her fingers point the viewer towards the other. [Plate I] This pose invokes images and ideas of the breast as a symbol of fertility and classicism.

While some of Sir William Macewen's patients were photographed concealing their breasts, it is likely that this may have been done out of personal choice, or at the photographer's request. For example, in a case of hernia the patient may have exercised her right to conceal her breasts by crossing her arms across her chest, either through embarrassment and to avoid any sexual connotation.<sup>5</sup> [Plate II] Thus, arguably, the resulting composition is both a synthesis of the photographer's request for the patient to stand on a block, in front of a screen, as well as the patient's initiative to conceal her breasts.

Moreover, some male patients were also photographed covering their chest, although the position of the hands in such images appears more practical; their hands were arguably raised to avoid them hanging down and distracting or concealing the pathology.<sup>6</sup> [Plate III] This is made more visually prominent, when one compares a close up shot of the same patient, in which his hands are shown holding the legs of a stool in one instance [Plate IV], and behind the back, as in this case of varicose veins.<sup>7</sup> [Plate V]

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<sup>5</sup>Hernia, HB14/19/30.

<sup>6</sup>Hernia, HB14/19/30.

<sup>7</sup>Varicose veins, HB14/19/70.



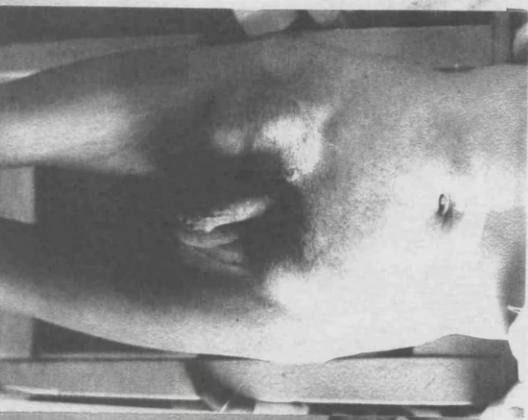
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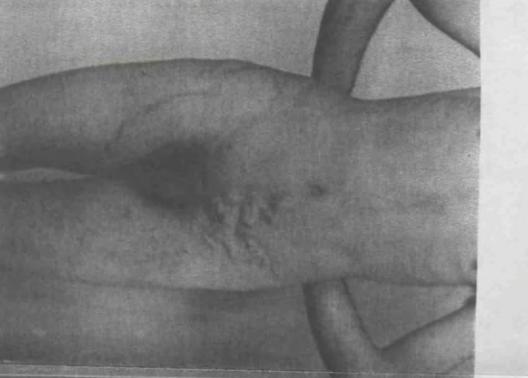
II



III



IV



V



VI

Similarly, in another hernia case, the female patient has made a half-hearted attempt to conceal her breasts, either for personal reasons, or to prevent them distracting from the pathology. Her face, however, has been cropped out. This was done probably when the shot was taken, rather than through trimming the print.<sup>8</sup> [Plate VI]

Pietro da Cortona's *Tabulae Anatomica*, published in 1741, contains images of partially dissected 'living' figures.<sup>9</sup> In Plate VII one can see the distinctive outline and partially opened abdomen. The pose, and the shape of the outline of the womb, resembles one of Macewen's hernia photographs.<sup>10</sup> [Plate VIII]

Cortona's original plates were later bought by the celebrated eighteenth-century anatomist, William Hunter. Hunter himself had an established interest in art and anatomy. In 1768, at the founding of the Royal Academy of Arts, Sir Joshua Reynolds appointed Hunter to the post of official anatomist. During this period, one saw for the first time the rise of the professional medical artist, exemplified in the engravings by Jan van Rimsdyk for Hunter's folio *The Anatomy of the Human Gravid Uterus*, published in 1774.<sup>11</sup> For Hunter, direct observation was the key to accurate representation:<sup>12</sup>

[A]natomical figures are made in two different ways; one is the simple portrait in which the object is represented exactly as it was seen; the other

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<sup>8</sup>HB14/19/30.

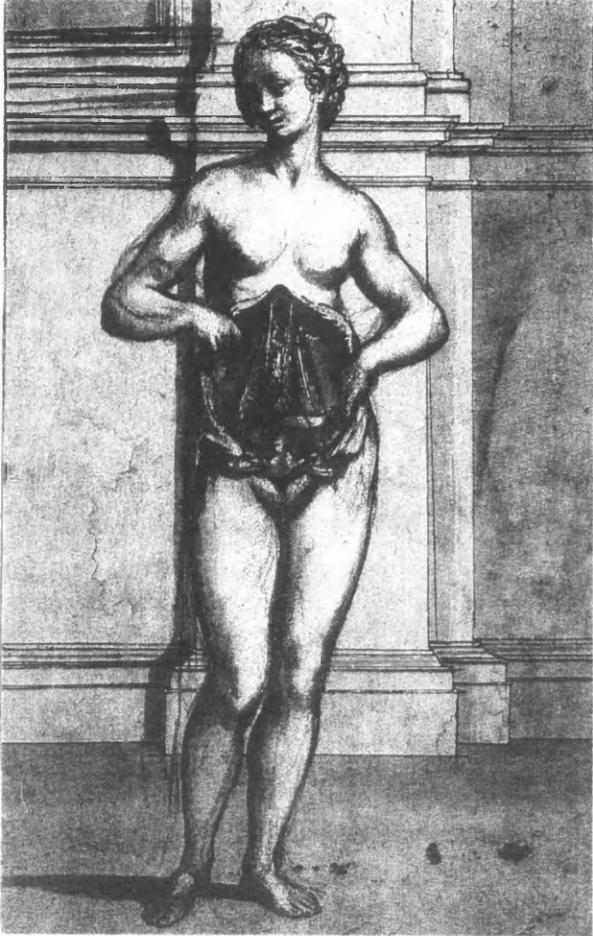
<sup>9</sup>Da Cortona, P. (1741) *Tabulae Anatomicae a Celeberrimo Pictore Petro Berrettino Cortonensi Delineatae* (Rome: Fausto Amideio).

The holding up of mirrors to show details of anatomy in Cortona's plates has parallels in some civil war photographic portraits, see for example, Bengston, B.P. & Kuz, J.E. (1996) *Photographic Atlas of Civil War Injuries: Photographs of Surgical Cases and Specimens: Otis Historical Archives* (Georgia: Kennesaw Mountain Press).

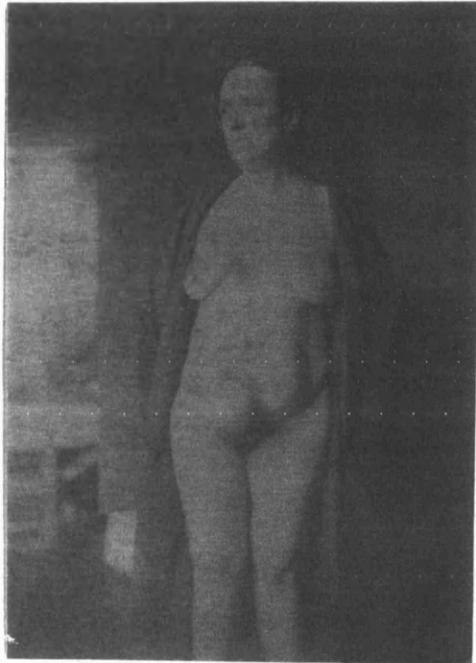
<sup>10</sup>Hernia, HB14/19/13.

<sup>11</sup>Hunter, W. (1774) *The Anatomy of the Human Gravid Uterus* (Birmingham: John Baserville).

<sup>12</sup>Laskey, J. (1813) *A General Account of the Hunterian Museum, Glasgow* (Glasgow: Publishers details unknown).



VII



VIII

is a representation of the object under such circumstances as were not actually seen, but conceived in the imagination.<sup>13</sup>

Hunter was also an avid collector of casts and specimens, all of which were displayed in the Hunterian Museum in Glasgow. As a young medical student in the early 1860s, Macewen visited this Museum, and was described by friends and family as being a great admirer of Hunter's work. Therefore, it is possible that Hunter's work fuelled Macewen's interest in observation as well as his desire to create a collection of photographs, casts and specimens in his later career. Moreover this experience may have educated his gaze in the classical conventions.

According to the art historian, Martin Kemp, Hunter's images belong to one part of an artistic tradition, termed the 'Rhetoric of Reality', or "warts and all style".<sup>14</sup> Kemp's second category refers to the humanist tradition which often sees classical and heroic figures posed in outdoor settings and is clearly exemplified by the work of Cortona.

The 'Rhetoric of Reality' aims to convince the viewer that the image is created through direct observation of the subject. Thus, such images contain clues to 'realistic looking', and include forensic details such as wooden blocks, ropes and other instruments of dissection.<sup>15</sup> Such details, Kemp argues, also impart 'accessory information', which provide clues to the location, for example. John Bell's eighteenth-century engraving, entitled 'Muscles, Plate IV', shows a dissected male cadaver lying prone on a table, and in the background a rope is suspended in front of a window.<sup>16</sup> [Plate IX]

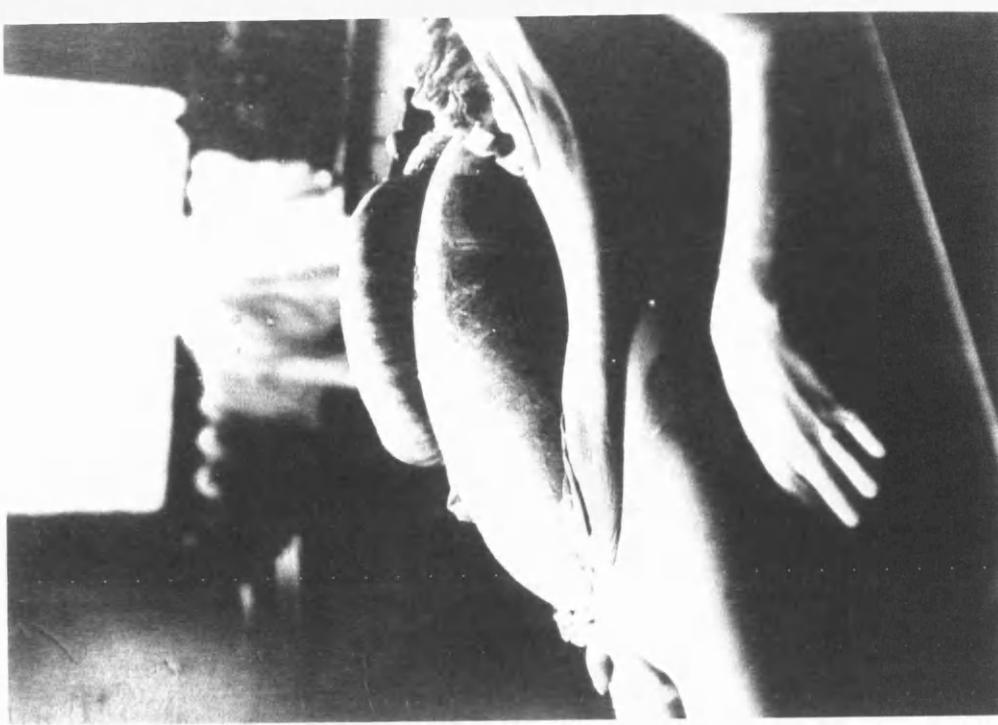
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<sup>13</sup>Hunter, *Anatomia Uteri*, Preface.

<sup>14</sup>Kemp, M. (1997) 'A Perfect and Faithful Record: Mind and Body in Medical Photography Before 1900', in A. Thomas & M. Braun (eds.) (1997) *Beauty of Another Order: Photography in Science* (London: Yale University Press), 120-235.

<sup>15</sup>These realistic clues can also been seen in John Bell's folio. See Bell, J. (1793) *The Anatomy of the Bones, Muscles, and Joint* (Edinburgh: G. Mudie).

<sup>16</sup>Some authors have discussed the prone position of female cadavers, see for example, Jordanova, L. (1999) *Nature Displayed: Gender, Science and Medicine, 1760-1820* (London: Longman). However, little work has been done on the 'mirroring' of poses in both male and female cadavers.



X



IX

MUSCLES. PL. VIII.

By Gerard de Boer.

The position of the hand, as well as the natural lighting provided by the window has parallels with one of the few post-mortem photographs to feature in Macewen's collection.<sup>17</sup> [Plate X]

The anatomists' tools of dissection, such as wooden blocks, (which acted as headrests) and ropes for suspension, are also evident in late nineteenth-century clinical photographs. One can see photographs of specimens, which have been pinned to a board or strung with catgut often in order to simulate their anatomical orientation.<sup>18</sup> [Plate XI]

One does not only see the rhetoric of the anatomist but also that of the surgeon. The presence of retractors and probes used to reveal the pathology to the camera convey the rhetoric of the surgeon to the viewer.<sup>19</sup> [Plate XII]

During the mid-to-late nineteenth century the study of human anatomy continued to play an important role in formal art education. However, during this period nudity had become a contentious issue, particularly in regards to pornography.<sup>20</sup> As a result, only the classical nude in the private studio or art school was commonly deemed acceptable in terms of Victorian taste and morals.

Early in his career, however, the Scottish painter David Wilkie (1785-1841) extended his repertory beyond the antique or classical pose. Wilkie achieved this by staging a *tableaux vivant*, exemplified by his watercolour entitled 'Female Nude

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<sup>17</sup>Undated, Untitled, HB14/19/71.

<sup>18</sup>'Tumour-popliteal space arising from tibia, posterior and outer aspect. Sarcoma, spindle-celled', 1895, HB14/19/14.

<sup>19</sup>'Tumour concretion attached to molar teeth upper jaw', 1896, HB14/19/12.

<sup>20</sup>In Glasgow, for example, the photographing of nude children was taboo, because of fears of child prostitution. Smith, A. (ed.) (2001) *Exposed: The Victorian Nude* (London: Tate Gallery Publishing).



XI



XII

Climbing a Ladder’, from 1840.<sup>21</sup> [Plate XIII] This seemingly ‘natural’ pose has parallels with the stance created as a result of pathological dislocation of the hip.<sup>22</sup> [Plate XIV] Importantly, Wilkie was also keen to convey emotions in his work.<sup>23</sup> This idea was furthered by the surgeon and artist Charles Bell (1774-1842). Wilkie attended a series of Bell’s lectures, which formed the basis of his book entitled *Essays on the Anatomy of Expression*, published in 1809.<sup>24</sup>

There are numerous parallels between ‘normal’ posture as represented in Victorian painting and drawing, and those found within contemporary clinical photographs. For example, one of Wilkie’s contemporaries, Charles West Cope, produced a drawing that demonstrates the *contrapposto* (or serpentine pose), which can be seen to have parallels in this late nineteenth-century photograph of a case of rickets.<sup>25</sup> [Plates XV and XVI]

Many of William Macewen’s clinical photographs [and those taken by his son Jack] display a classical influence. The classical character has been largely achieved through the use of drapes and plinths, in images of carcinoma of the breast and abnormalities of the trunk. However, according to Alison Smith, in her book entitled *Exposed: The Victorian Nude*, published in 2001, ‘associations with the antique

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<sup>21</sup>See Smith, (2001) *Exposed: The Victorian Nude*, 88

<sup>22</sup>Hip joint disease, HB14/19/50.

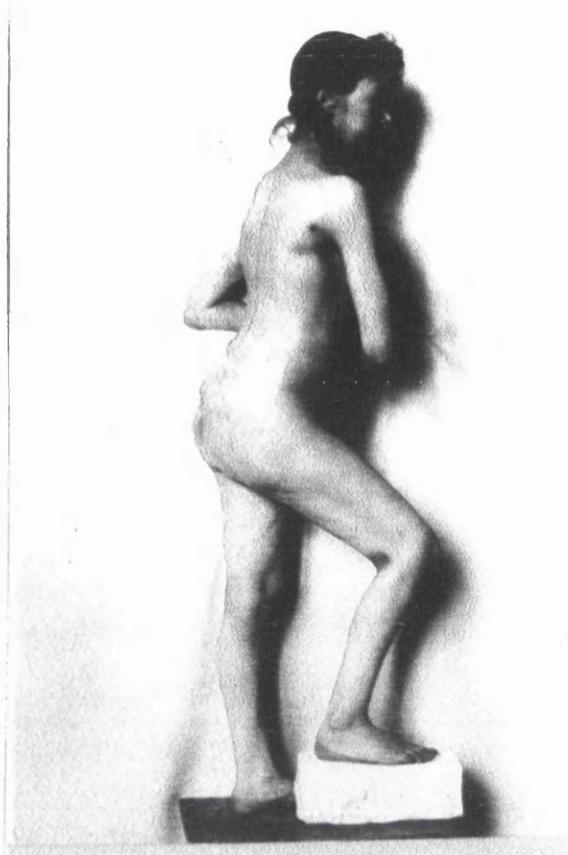
<sup>23</sup>See Irwin, D. and Irwin, F. (1975) *Scottish Painters at Home and Abroad, 1700-1900* (London: Faber and Faber), especially 165-185.

<sup>24</sup>Bell, C. (1886) *The Anatomy and Philosophy of Expression as Connected with the Fine Arts* (London: George Bell and Sons), 2. For Bell, expression, attitudes, and movements of the human figure conveyed the effect of historical narration. Moreover, for Bell facial expression could not only embody character but also a ‘state of disease’.

<sup>25</sup>It was Leonardo da Vinci who perfected the ‘serpentine’ pose in which the body twists about its axis, lending movement, grace and three-dimensional presence even to static figures. Compare with the image of Rickets, HB14/19/45.



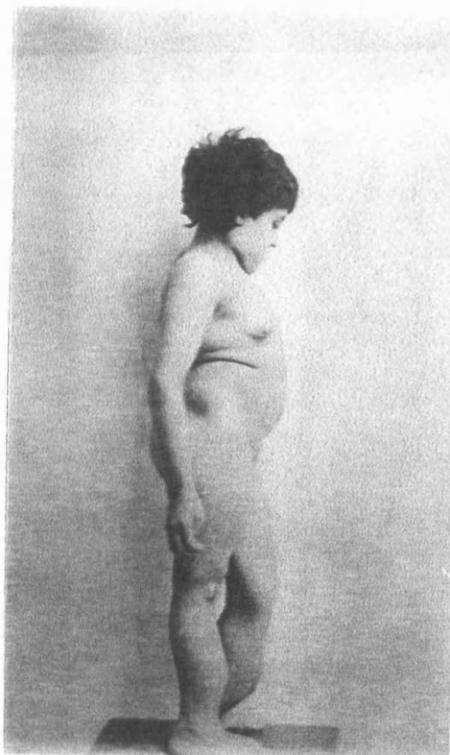
XIII



XIV



XV



XVI

helped divorce the nude from any implication of sexuality'.<sup>26</sup> Moreover, Macewen's operating theatre at the Glasgow Royal Infirmary, and subsequently at the Glasgow Western Infirmary, would have been considered a respectable location for a makeshift photographic studio.

It is uncertain whether Macewen underwent any formal artistic training. However, we do know however, that he was well-travelled, collected *carte-de-visite*, and made regular visits to art galleries and museums. Macewen wrote, that:

In studying the Greek statuary in the Vatican gallery in Rome, one of the figures in white marble was represented in the act of springing forward, in such a way as ought to have placed a particular tendon at the back of the knee joint on the stretch. On careful scrutiny the eye could not detect the impression of the stretched tendon on the surface of the marble, though the statue was in excellent light. The sense of touch revealed it however, the finger detecting in the marble the impression which the stretched tendon gives through the skin in the living body, showing that that Greek Sculptor knew the surface anatomy of his creation, and that he not only had a developed touch, but a high appreciation of the sense.<sup>27</sup>

Comparing some of Macewen's clinical photographs with images of contemporary statues, striking similarities in the pose are evident. For example, the statue entitled 'Phyrne' (made by an unknown sculptor, circa 1865) shows the figure attempting to conceal her face<sup>28</sup> [Plate XVII], which is echoed in one of Macewen's cases of carcinoma scirrhus of the breast from 1889.<sup>29</sup> [Plate XVIII] Similarly, Thomas Woolner's 1878 marble statue entitled 'Lady Godiva',<sup>30</sup>[Plate XIX] parallels the pose in another of Macewen photographs entitled, 'Tumour, Lipoma' from 1902.<sup>31</sup> [Plate XX]

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<sup>26</sup>Ibid.

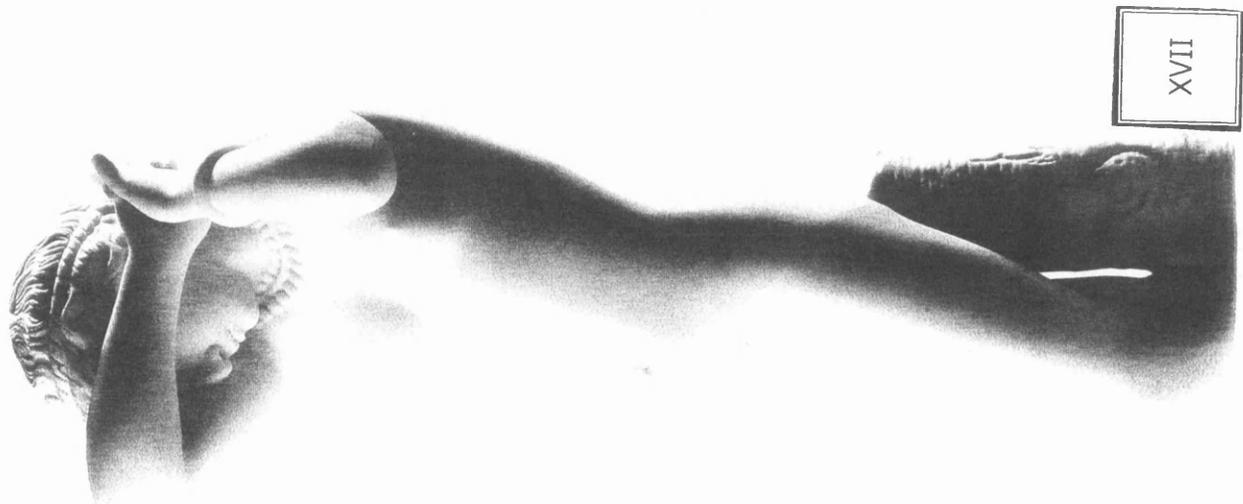
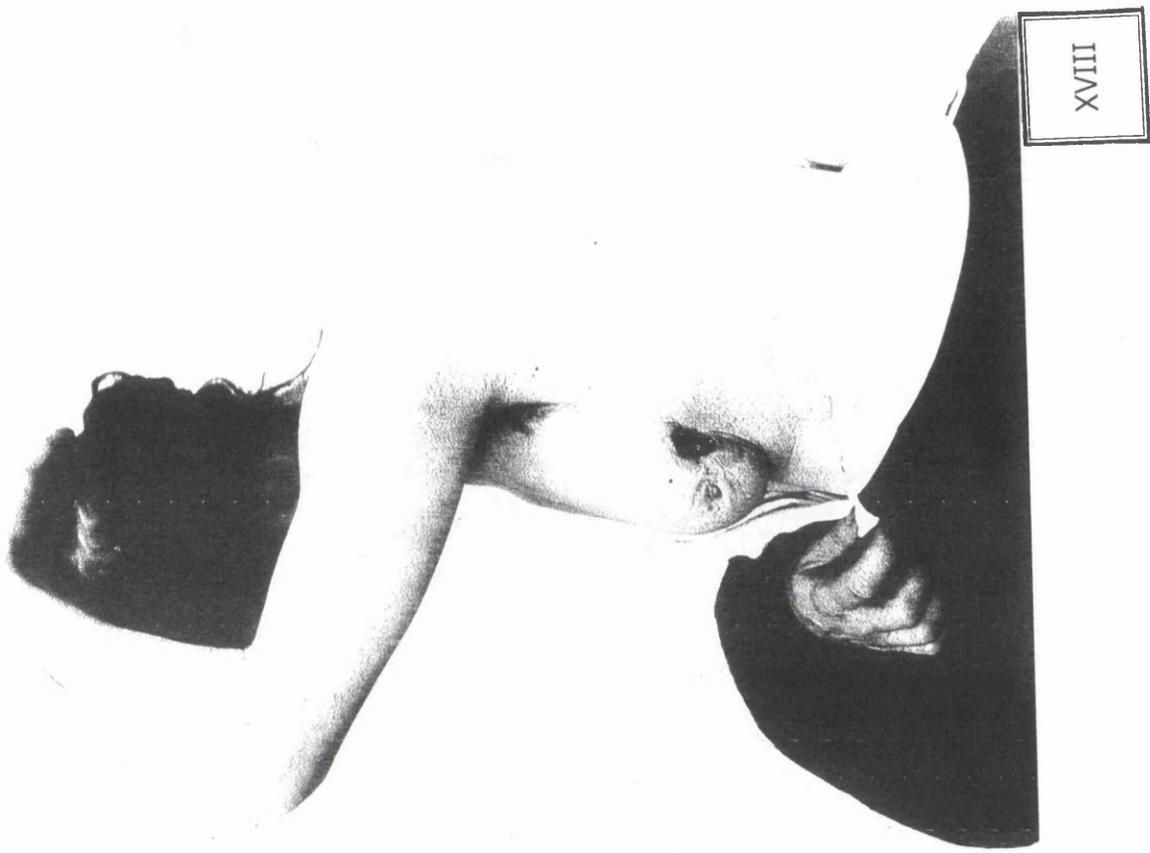
<sup>27</sup>Macewen, W. (undated, draft manuscript) 'Glimpses into the Effect of Education on the Brain', RCPSG10/4/17/1, page 7.

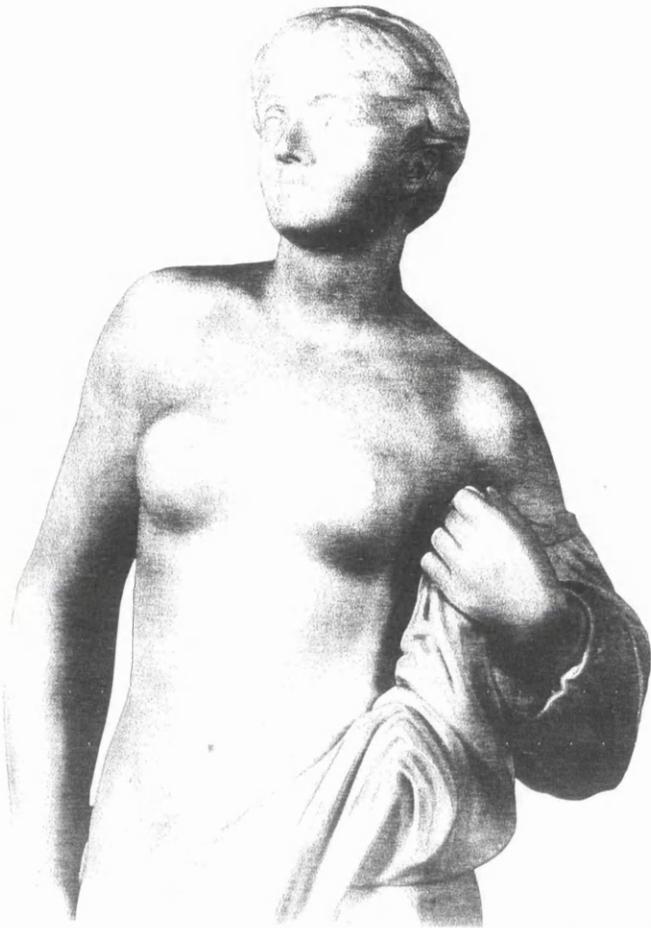
<sup>28</sup>'Phyrne', c.1865, Unknown maker. After Jean-Alexandre Flaguère, copied from the painting by J.L. Gérôme. Smith, (2001) *Exposed*, 114.

<sup>29</sup>'Tumour carcinoma scirrhus with ulceration', 1899, HB14/19/3,

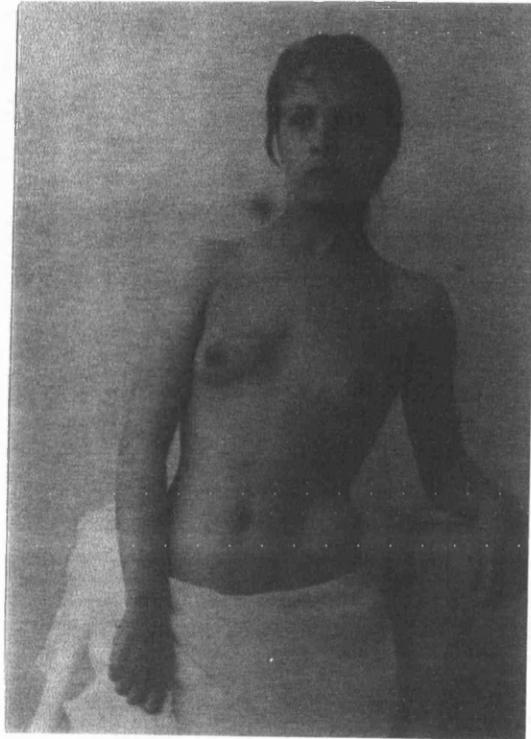
<sup>30</sup>See Thomas Woolner's 'Lady Godiva, Countess of Coventry, circa 1878' reproduced in Smith, *Exposed*, 76.

<sup>31</sup>'Tumour, lipoma, 1902', HB14/19/54.





XX



XIX

Moreover, some of the bodies represented in Macewen's photographs have clearly undergone preparation for surgery; using 'Macewen's method' to clean and shave the body. It is tempting to draw parallels between these photographs and the smooth marble surfaces of skin represented in classical statuary.<sup>32</sup>

It seems unlikely that Macewen's religious convictions, nor those of his son (both members of the Free Church of Scotland), influenced their attitudes to either surgery or photography.<sup>33</sup> Nevertheless, if one looks at the poses in religious imagery, such as Mantegna's 'St Sebastian' from circa 1458,<sup>34</sup> [Plate XXI] this has parallels in Macewen's photograph of a case of hernia, not only in the stance of the patient but also in details such as the tiled floor.<sup>35</sup> [Plate XXII] Similarly, d'Agoty's eighteenth-century painting entitled 'Anatomical Virgin and Child' is a powerful image.<sup>36</sup> [Plate XXIII] This iconography also pervaded late nineteenth-century clinical photography. In a photograph from one of the Glasgow Western Infirmary's pathology reports for example, a patient suffering from Paget's disease of nipple, was photographed drawing her breast towards the camera.<sup>37</sup> [Plate XXIV]

So far in this account I have attempted to draw parallels both in terms of composition and pose, between sixteenth and eighteenth-century painting, drawing and sculpture and late nineteenth-century clinical photography. It does appear that some of Macewen's clinical photographs adhere to Kemp's divisions of the 'humanist' and the 'rhetoric of

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<sup>32</sup>The body is also shaved to reveal details of pathology, see for example, Plates 15-16 on page 90 in this thesis.

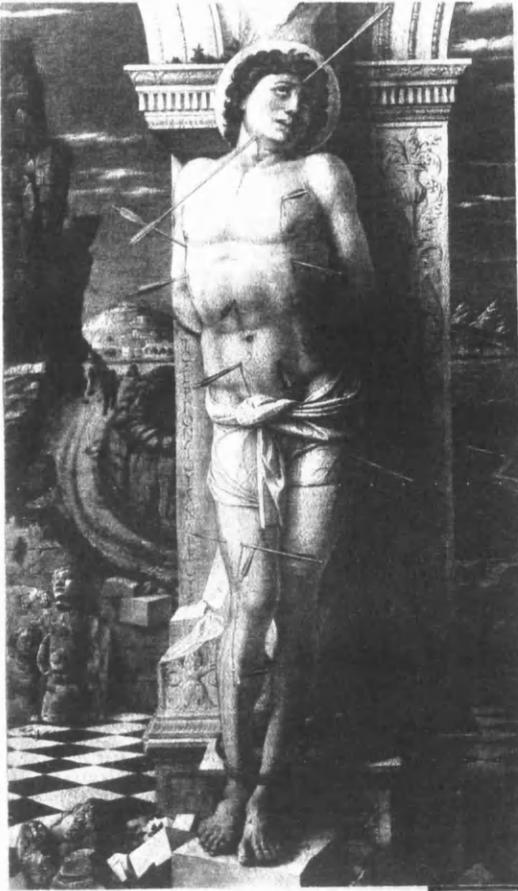
<sup>33</sup>Imagery and Iconography were not part of the Free Church liturgy or architecture.

<sup>34</sup>See Andrea Mantegna, 'St Sebastian', reproduced in Hyatt Mayor, A. (1984) *Artists and Anatomists* (New York: Artists Limited Edition), 54.

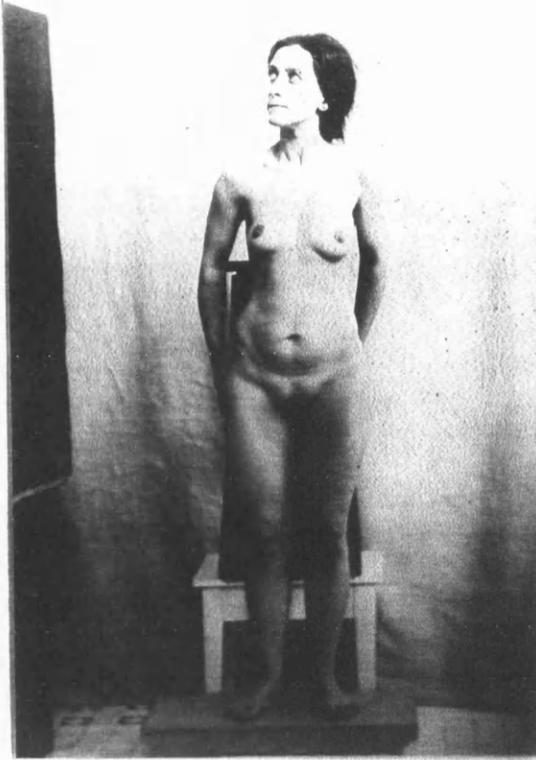
<sup>35</sup>Hernia, HB14/19/27.

<sup>36</sup>See Jacques-Fabien Gautier d'Agoty, 'An Anatomical Virgin and Child', circa eighteenth century, reproduced in Petherbridge, D., Jordanova, L. (1997) *The Quick and the Dead: Artists and Anatomy* (London: South Bank Centre), 91.

<sup>37</sup>'Cancerous ulcer of the breast', 1894, Post-Mortem Report 3789, Ref. P5/1/17.



XXI



XXII



XIII



XXIV

reality', both of which found expression in sixteenth-century medical illustration. Therefore, the shift from classicism to realism is not as simple as Jonathon Crary suggests. Rather, I would argue that some of Macewen's clinical photographs in particular, were a synthesis of the classical, realist and clinical models of thought.<sup>38</sup>

As the classical nude was considered the apotheosis of the 'perfect' healthy body, it seems a paradoxical choice for representing the pathological subject. Nevertheless, this may be in part reflected not only by artistic and medical training, but also ideas relating to the nude in contemporary society.

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<sup>38</sup>Some clinical conventions; appear practical such as the dark backgrounds, to accentuate the curvature of the spine for instance, and hand-rests, for the latter, see [133:253].

## **Appendix Five: Contextualising Late Nineteenth-Century Clinical Photography**

In order to make a preliminary comparative study of late nineteenth-century Glasgow clinical photography I will compare a selection of these images with those taken by contemporary medical men on the Continent, thus exploring the ways in which a selection of diseases were represented.<sup>1</sup>

### ***Rickets***

The Viennese surgeon Theodor Billroth included a photograph of a case of rickets in his stereoscopic atlas, published in 1867.<sup>2</sup> [Plate XXV] One can see a young child standing semi-naked, with his arms partially concealed behind the back of the chair. This image is a synthesis of the contemporary photographic portrait with the rich upholstery, combined with a clinical content. This pose, along with the dark background, is echoed in later clinical photographs. For example, in 1894 a similar image featured in one of the ward journal's of the Royal Hospital for Sick Children, Glasgow.<sup>3</sup> However, in this image an assistant is offering a hand for support. [Plate XXVI]

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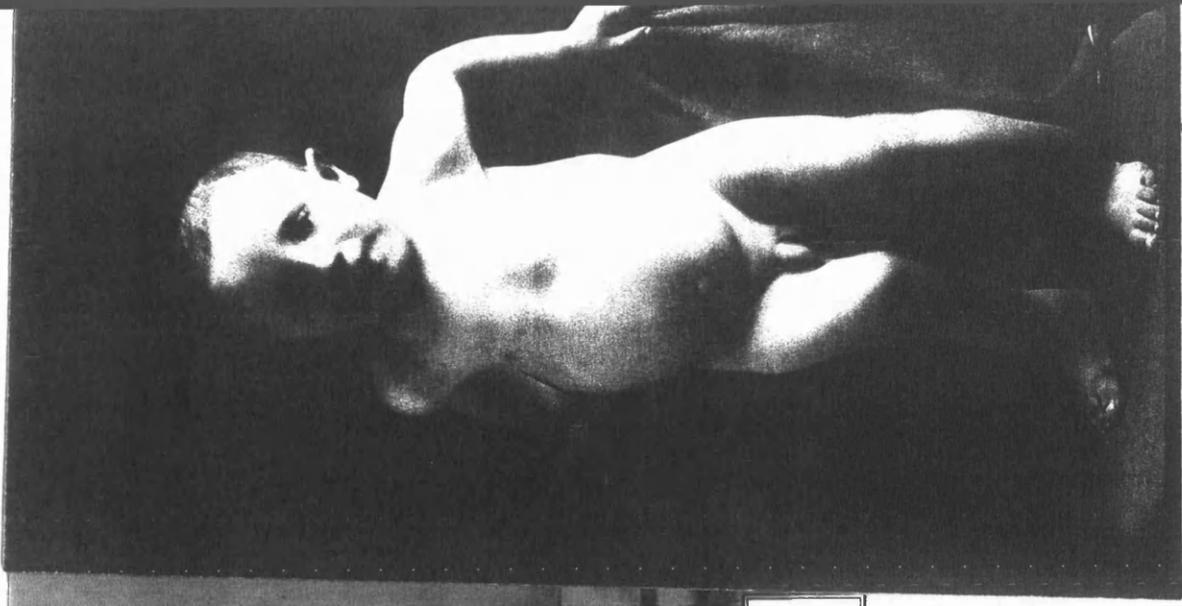
<sup>1</sup>This is to invoke Michael Baxandall's concept of the 'period eye', a form of visual acuity. Baxandall, M. (1972) *Painting and Experience in Fifteenth Century Italy: A Primer in the Social History of Pictorial Style* (Oxford: Clarendon Press).

For example, photography may not only have increased the medical professions visual acuity but also led to the acceptance of a series of almost 'standard' ways of representing a disease, for example, patients suffering from carcinoma of the breast, were often photographed naked from above the waist, facing straight into the camera.

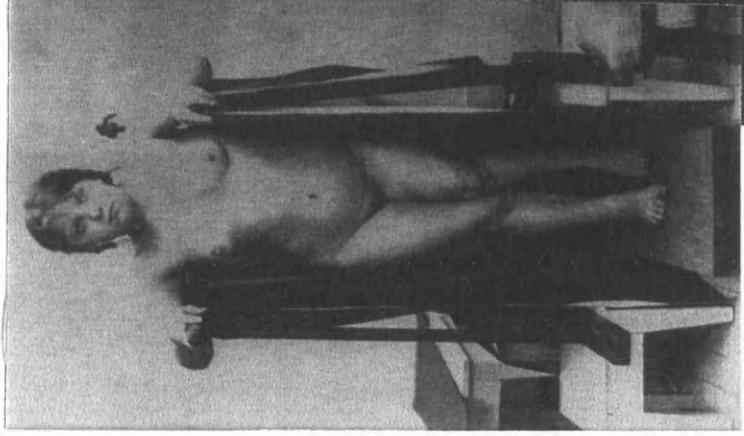
<sup>2</sup>Billroth, T. (1867) *Stereoskopische Photographien Chirurgischer Kranken* (Erlangen: Enke).

Reproduced in Taureck, R. (1980) *Die Bedeutung der Photographie für die Medizinische Abbildung im 19. Jahrh* (Feuchtwangen: Alleinvertrieb, C.-E. Kohlhauser), page 100.

<sup>3</sup>'History of rickety legs', 1894, RHSC, Ward II, Volume V, YH7/2/5.



XXVII

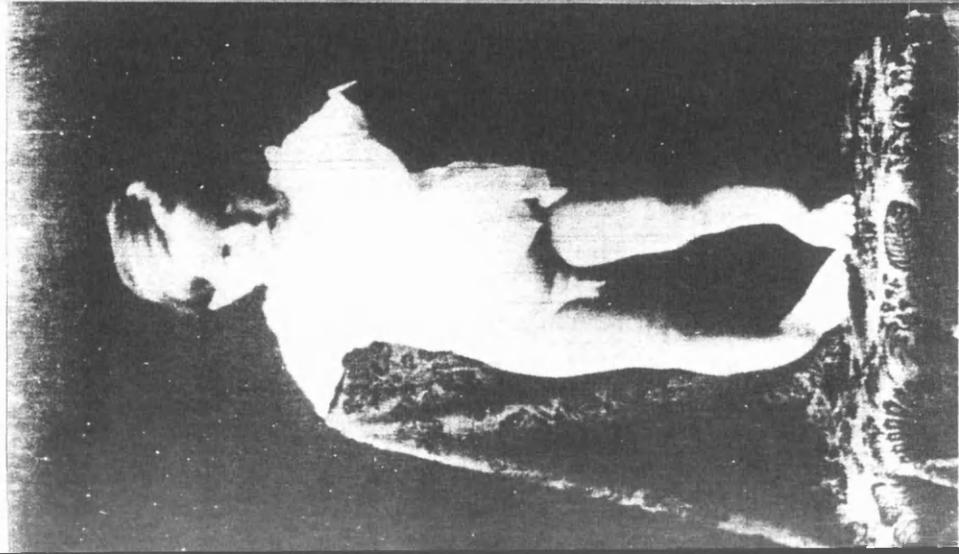


XXVI



*Gen. Kaulic. Christ. Jan. 1893  
1893 176*

XXV



Macewen's photograph of a case of rickets from 1906, echoes the same posture, but the background is somewhat cluttered.<sup>4</sup> [Plate XXVII] The final image of rickets in the sequence on page 409 belongs to the collection of Albert Narath and Hiddo Jan Lameris. Narath and Lameris were surgeons at Utrecht's Municipal Hospital and their image of rickets is almost identical to that taken some years earlier for Billroth.<sup>5</sup> [Plate XXVIII] In pulling together this sequence of images from a variety of contexts, it appears that the examples from Glasgow exhibit a similar pose to those taken on the Continent.

### ***Disease and Trauma of the Joints***

Some patient's poses were assisted with props. For example, Jean-Martin Charcot's case of Charcot's Joints, taken in 1894, shows a woman standing supported with the aid of an umbrella and a pedestal. According to Goetz, Bonduelle and Gelfand in their book entitled *Charcot: Constructing Neurology*, published in 1995, these props were 'likely objects found in the work studio' of Charcot.<sup>6</sup> [Plate XXIX] This pose is echoed in one of Macewen's photographs of a case of 'old ununited fracture of femur in upper third', here, however, a specialised stand provides support.<sup>7</sup> [Plate XXX] However, the patient's face has been cropped out of the shot, or the print was subsequently trimmed.

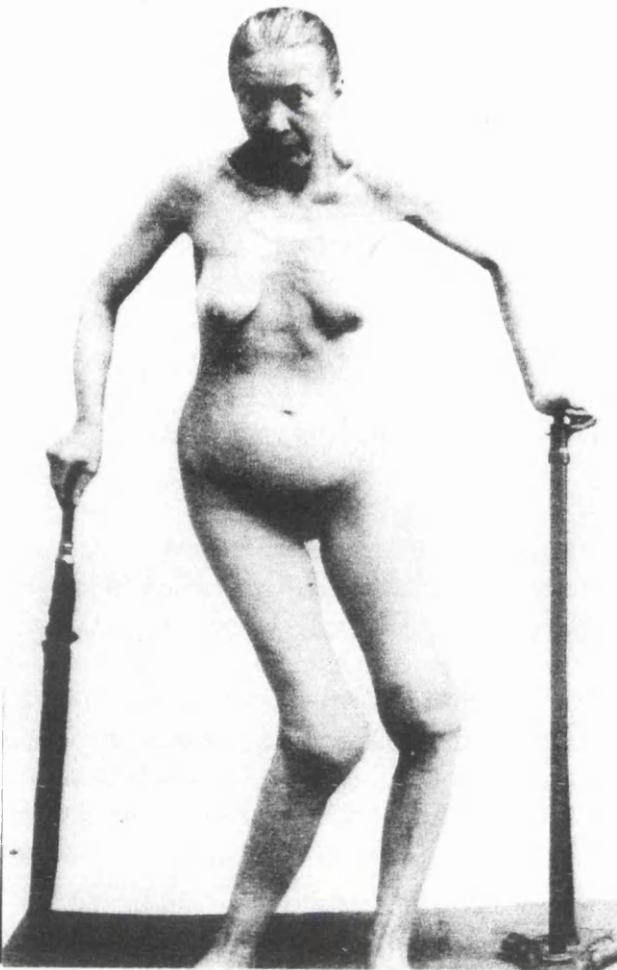
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<sup>4</sup>Rickets', 1906, HB14/19/64.

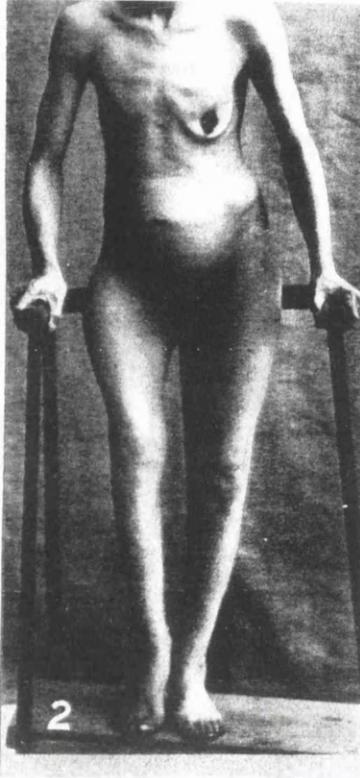
<sup>5</sup>Bandy legs and buckled ankles resulting from rickets', date unknown. See, Troost, F. & van Zoetendaal, W. (1999) *Utrecht Goitre* (Amsterdam: Basalt Publisher), page 13.

<sup>6</sup>Goetz, C., Bonduelle, M., and Gelfand, T. (1995) *Charcot: Constructing Neurology* (Oxford: Oxford University Press), 112. Compare these two images with those in Alexander Patterson's collection. See Plate 266 on page 337 in this thesis.

<sup>7</sup>Macewen, J.A.C. (1919) *Fractures, Compound Fractures, Dislocations and Their Treatment: With a Section on Amputations and Artificial Limbs* (Glasgow: Maclehose, Jackson), 128. See also, Macewen, J.A.C. (1922) *A Text Book of Surgery for Students and Practitioners* (Glasgow: Maclehose, Jackson & Co.), 144.



XXIX

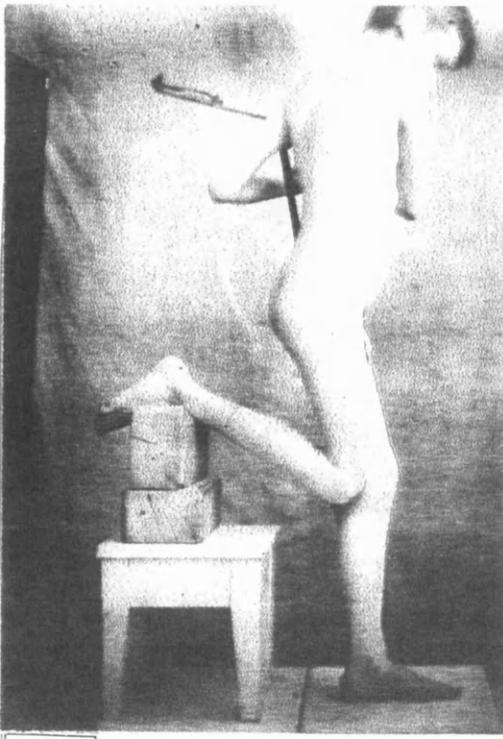


2

XXX



XXXI



XXXII

Some of Macewen's and Narath-Lameris photographs attempt to capture movement. These are not so much the *tableaux vivant*, but rather a pathological stance, as seen in Narath-Lameris' photograph of a case of Tuberculous spondylitis (arching of the back due to an infection of the spine) and a defective right knee, from 1906.<sup>8</sup> [Plate XXXI] This image echoes Macewen's image taken after an excision of knee, where the flexed leg is supported with aid of wooden blocks.<sup>9</sup> [Plate XXXII] Such animated poses tend to be a feature of photographs relating to pathology of the spine and limbs.

### ***Carcinoma, Goitre***

If one compares photographs of carcinoma of the breast by Macewen (entitled 'Cancer Atrophying Scirrhus', 1908), taken both before and after treatment [Plates XXXIII and XXXV],<sup>10</sup> to those by Narath-Lameris entitled 'Oedema, as a result of carcinoma of the breast', [Plate XXXIV] the simple 'straight on' taken from above the waist, is clearly a standard one.<sup>11</sup>

Although nudity above the waist is evident in many photographs of carcinoma of the breast, it is noticeable that in some of Macewen's photographs there appears to be needless nudity. This is perhaps best exemplified by his case of Goitre, where the woman's breasts are revealed.<sup>12</sup> [Plate XXXVI]

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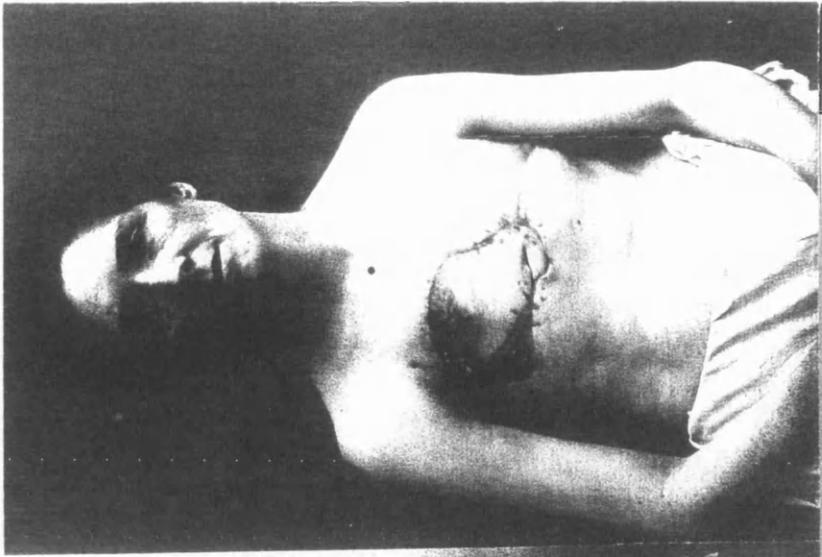
<sup>8</sup>Troost and van Zoetendaal, *Utrecht Goitre*, page 14.

<sup>9</sup>'Osteotomy, excision of right knee', date unknown, Ref. HB14/19/64.

<sup>10</sup>'Carcinoma of breast-right', 1908, HB14/19/22; 'Carcinoma of right breast with nodulation .left breast transplanted to right side to supply skin deficiency', HB14/19/22.

<sup>11</sup>Oedema. Accumulation of fluid in the tissue of the shoulder and arm following amputation of the left breast in cancer. Date Unknown. *Utrecht Goitre*, 29.

<sup>12</sup>Goitre, 1906, Ref. HB14/19/71.



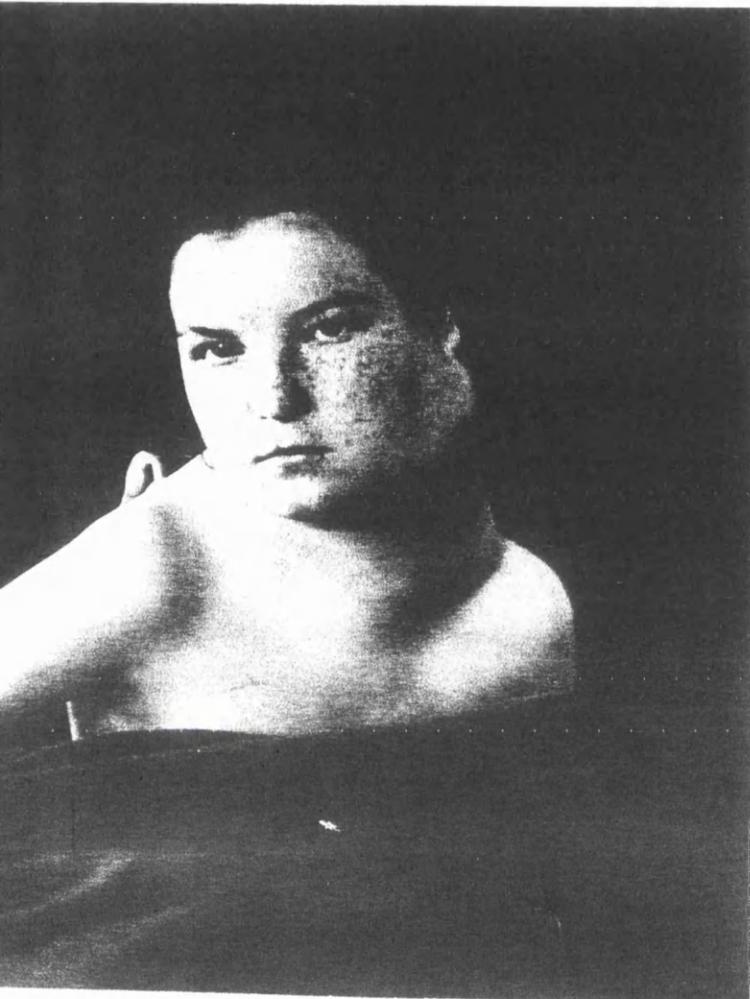
XXXIV



XXXV



XXXIII



XXXVII



XXXVI

In contrast, the comparable Narath-Lameris image, a drape has been placed around the woman, revealing only her neck and face.<sup>13</sup> [Plate XXXVII].

From this preliminary overview, it appears that at least some of the conventions used in Macewen's photographs are similar to those used by his contemporaries at home and abroad. Nevertheless, these conventions appear to be a synthesis of the clinical convention and the classical nude.

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<sup>13</sup>Hodgkin's disease (lymphogranulomatosis), Date unknown, *Utrecht Goitre*, 73.

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<sup>1</sup>This list includes some of the most important items.

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