The last portrait of Willem Einthoven: newly discovered links between Sir Thomas Lewis and Alexander Samojloff

Dennis M Krikler, Arthur Hollman

The discovery of previously unknown personal links between scientists is of particular interest when political and military crises interfere with normal contacts, and subsequently shows the value of their contributions. During both world wars knowledge of what was happening in occupied areas or in enemy countries was blocked. But there were occasional gaps. Lepeschkin, working in Bad Nauheim in Germany in 1942, was able to cite up to date references from the British Heart Journal in his textbook of electrocardiography; presumably he received the journal through Switzerland. Far more commonly delays in communication meant that the work of individuals went unrecognised, so that in occupied France in 1943 Lenègre and Maurice developed diagnostic cardiac catheterisation without knowing of Courmand's slightly earlier studies in the United States.

Alexander Filipovich Samojloff was a Russian pioneer of electrocardiography who took up the subject in 1904 after visiting Willem Einthoven to learn of his work with his newly developed string galvanometer. Few clues link Samojloff with other workers in electrocardiography apart from his description of a visit to Boston in 1929 when he addressed Paul Dudley White's postgraduate students. This was his third visit to Boston; he went there to see his twin sons who had emigrated from Russia during the civil war that followed the Bolshevik revolution. During the second of these visits White, in a note to his mother, described Samojloff as being "...a physiologist much interested in electrocardiography, in which he is one of the world's authorities."16

Links with Einthoven
During his 1929 visit Samojloff gave a talk on Einthoven and told his audience about a photograph of Einthoven that he thought to be a particularly good likeness; it was given to him by his mentor during Samojloff's last visit to Leiden in 1927, shortly before Einthoven's death. Samojloff offered to send a copy to the Massachusetts General Hospital on his return to Russia but it cannot be found there or among White's papers (Oglesby Paul, personal communication); nor is there a copy in Samojloff's archive (Anna Samojloff, personal communication).

In 1989, after the death at the age of 99 of Lady Lewis—44 years after that of her husband—one of us (AH) was asked to examine her collection of photographs and found a portrait of Einthoven (fig 1). The inscription above the head reads "Seinem lieben Freunde Herrn Prof A Samojloff." (His dear friend ...) The clear signature at the bottom of the picture is "W Einthoven".

How well did Lewis and Samojloff know each other? Did Lewis know that by the second half of 1908 the University of Kazan already had a Cambridge string galvanometer,
Dear Dr Lewis,

I read your article about the late Prof. W. Einthoven in the 'Heart' and in Proc. of the R. S. In both journals there are given the photos of Einthoven. The portrait however does not seem to be fully true to nature and does not give characteristic traits of the face of the man whom we all so deeply esteemed. Some months for his death the late Einthoven presented me with his photograph which I consider to be excellent in every point. If you are interested in having a copy of it I will be happy to send you one.

With great pleasure I remember the nice time I spent in London during the Harvey Celebration.

With kind regards and best wishes,

Your truly

Prof. A. Samojloff
Kasan U.S.S.R.
University
Laboratory of Physiology

Samojloff and Lewis

The visit to London that Samojloff mentioned was for the tercentenary celebration in 1928 by the Royal College of Physicians of the publication of De Motu Cordis. The celebration started on 14 May with a reception by King George V at Buckingham Palace in front of which Samojloff was photographed with Pavlov (fig 2). The next two days were occupied by scientific sessions at University College London which included the film which Lewis and Henry Dale had made of Harvey's experiments, and a demonstration of the blood vessels of the human skin by Lewis, R T Grant, and K E Harris. Illness prevented Lewis from attending these sessions and the College's Registrar, Dr Raymond Crawford, wrote to tell him of the acclaim with which the film was received. So Samojloff would not have met Lewis then nor at the Guildhall banquet on 16 May where they were both allocated seats. During the commemoration the college conferred an honorary fellowship.
on the other principal Russian visitor, I P Pavlov, and also on K F Wenczebach of Vienna.

The Physiological Society commemorated the occasion with a meeting at Downing College, Cambridge, on 19 May where Lewis and Samojloff did after all have the opportunity of seeing each other—both their signatures appear on the list of those attending the Harvey luncheon that day (fig 3). Lewis was elected a member of the Society on 23 January 1904, early in his career; indeed, before he had qualified in medicine.

Samojloff’s first, handwritten letter is in the Contemporary Medical Archives Centre at the Wellcome Institute for the History of Medicine (PP/LEW/A.1/659) and is annotated “Ack personally” in Lewis’s handwriting, so there is no copy of his reply. Within three weeks Samojloff had responded (fig 4) and had sent the photograph (fig 1).

Lewis and Einthoven were close friends and regular correspondents; the personal links between Einthoven and Samojloff were even closer and indeed of longer duration. Though Samojloff only established personal contact with Lewis towards the end of his life, he clearly had kept in touch with Lewis’s work, despite all the problems of the unsettled times in post-revolutionary Russia. Unfortunately, there is no mention of this correspondence in the volume of collected works of Samojloff published by the USSR Academy of Science on the centenary of his birth; while this contains an account of some of his international contacts, correspondence is limited to several letters from Russian colleagues. There is nothing to or from Einthoven, with whom he had exchanged letters for more than twenty years—the Einthoven archive in Leiden contains about 70 letters from Samojloff to Einthoven, some of them supplemented by a short summary of Einthoven’s reply (H A Snellen, 1990, personal communication). Nor, alas, is there anything to or from Lewis.

Just after this article was submitted, Nora Andreevna Grigoryan, the editor of Samojloff’s collected works, found several letters from Lewis among Samojloff’s personal papers. In January 1910 Lewis’s secretary thanked Samojloff for “his kindness in sending reprints of his interesting and valuable papers.” Lewis followed this up with a personal letter in his own handwriting on 20 April 1910, in which he wrote “Dr Lewis
would be glad if Professor Samojloff would send him reprints of his published works on the electrocardiogram." In addition to acknowledgments of reprints over the years, in a handwritten letter Lewis (15 August 1922) commented on a paper on atrial flutter by Samojloff, of which he had received a reprint, and discussed various interpretations of the cycles. But the most interesting letter is that sent in 1928, in which Lewis thanked Samojloff for the picture of Einthoven, which he also admired (fig 5).

The letters from Samojloff are reproduced with the permission of his daughter Anna Samojloff of Moscow and through the courtesy of the Trustees of the Wellcome Trust, whom we also thank for permission to mention the letter from Raymond Crawford to Lewis. We thank Professor R A Chapman, secretary of the Physiological Society, for permission to use material from their archives and Mr D H Steven, honorary archivist, for the list of those attending the Society’s Harvey celebration, used in figure 3. Mr Geoffrey Davenport, librarian, Royal College of Physicians, kindly provided details of the College celebration.


7 Burnett J. The origins of the electrocardiograph as a clinical instrument. Med Hist 1985;suppl 5:53-76.


10 Lewis T. The mechanism and graphic registration of the heart beat. 3rd ed. London: Shaw and Sons, 1925.

