



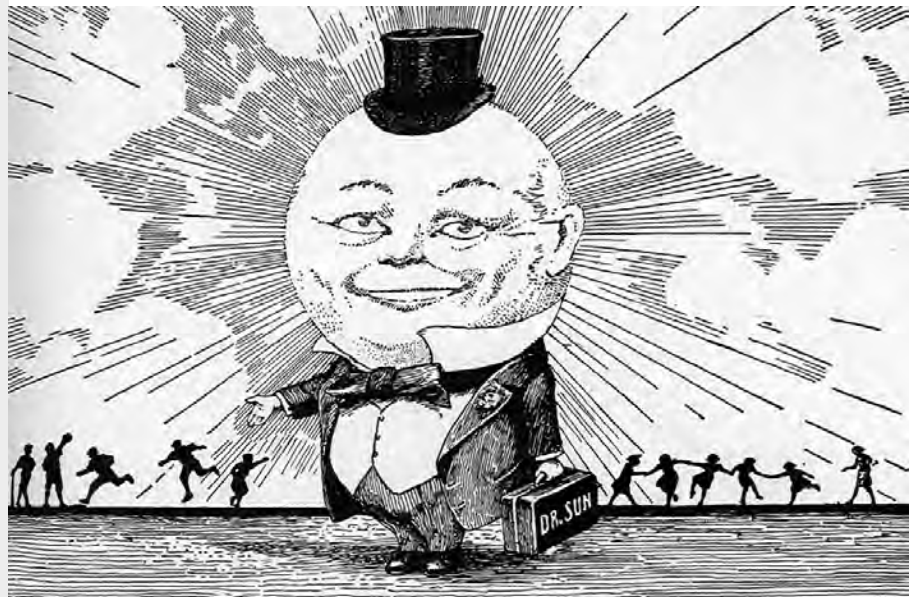
# Exhibition



## *Our Friend, the Sun: Images of Light Therapeutics*

*from the*

*Osler Library Collection,  
c.1901-1944*



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## INTRODUCTION

He may resemble some overblown bourgeois Humpty Dumpty, but in J.M. Andress and W.A. Evans' 1925 children's hygiene handbook, *Success and Health*, "Doctor Sun" (Fig.1) is prominently promoted as the wise choice of a family physician with very real sincerity. With his smiling face, radiating luminous rays, and open gesture, he welcomes the viewer to his domain, where in the background children dance and play. Here health and happiness are shown as one and the same.

Nor is this a unique representation of the sun as doctor. A Cannes physician, Dr J. Orgeas, for example stated as early as 1889:

Just as the sun is the principal of all life, so it is the source of all healing. It is the Sun, and uniquely the Sun, that sick people seek in winter on our coast. It is the Great Doctor, Doctor of the Faculty of the Sky, to whom the suffering come to demand a cure for their ills.<sup>1</sup>

It might seem natural, even obvious, to associate sunny days with play, pleasure, and well-being. But the connection between sunshine and health has been historically less a matter of instinct than a deeply naturalised therapeutic practice, and one especially dating to the turn of the twentieth century. This is the subject of the exhibition, "**Our Friend, the Sun: Images of Light Therapeutics from the Osler Library Collection, c.1901-1944**" (the Osler Library of the History of Medicine, McGill University, January-June 2011).

The development of light therapeutics is a little-explored dimension in the history of medicine. The following exhibition presents an international visual culture of light therapies during the early twentieth century, considering both natural light – cure by sunlight or heliotherapy – and artificial light – cure by electrically manufactured light or phototherapy. Heliotherapy, an ancient practice of total bodily exposure to sunlight, and phototherapy, pioneered by Niels Ryberg Finsen in the 1890s, were considered to be revolutionary therapies by c.1900 for sufferers of pulmonary tuberculosis, smallpox, and lupus, as well as chronic conditions such as arthritis.

The exhibition features in particular the work of four physicians: John Harvey Kellogg (1852-1943); Auguste Rollier (1874-1954); Albert Monteuuis (fl.1900-1914); and Niels Ryberg Finsen (1860-1904). American, Swiss, French, and Danish, respectively, these four physicians knew of each other's work and, in some cases, visited each other's facilities, indicating that light therapeutics was an international field. Kellogg and Finsen also individually experimented with both heliotherapy and phototherapy, evidence that the two were far from antithetical treatments or chronologically separated. Indeed, while Finsen may have begun experimenting with natural light in the outdoors initially during the 1890s (soon abandoning this entirely for artificial electric light), Kellogg would use both simultaneously, and Rollier continued to utilise natural light from the turn of the century to the Second World War, having never converted to artificial

means. Therefore while the exhibition is divided into two halves, heliotherapy (the two left cases) and phototherapy (the two right cases), significant cross-over occurred between the two – in their historical developments, in their visual cultures, in their methods, and in the shared scientific beliefs driving them as therapies.

Significantly, these physicians asserted the ancient, quasi-magical origins of light therapeutics at the same time as they advocated it as a “modern” therapeutic of sound scientific rationale. So too did they posit it as a welcome, pleasurable and comfortable experience while simultaneously including photographs of patients strapped down, exposed to the sun almost nude in winter, or subjected to gun-like electric machines. Themes of *natural and artificial*, *ancient and modern*, and *pleasurable and painful* within the history and visual culture of light therapeutics illuminate this exhibition of rare illustrated texts and objects from the Osler Library collection. It also considers how heliotherapeutic and phototherapeutic practices were disseminated and popularized by that visual culture.

The historical relationship between sunlight and health in modern Western cultures has only begun to be explored, and yet is fundamental to contextualizing current debates in the medical and popular press on the benefits and risks of light exposure, particularly regarding skin cancers. This research is also valuable at a time of increasing public concern over the impact of climate change. You, the viewer and visitor, are especially invited to add your comments and thoughts, even your own personal experiences of the sunshine, in the Visitors’ Book.

## HELIO THERAPY

*“The deep study of the sun’s rays which has been made by physicists within the last few years, has thrown a great flood of light upon this subject which is of precious value to clinicians. A very important practical fact is the great variability of the intensity of the sunlight and especially of ultra-violet rays, an element of highest interest from a therapeutic standpoint” (Kellogg, 1910, p.15).*

Recently, Simon Carter has devoted some attention to heliotherapy in his 2007 book, *Rise and Shine: Sunlight, Technology and Health*; his focus is, however, primarily British and from the 1920s onwards. Indeed, popular history books tell us that the act of exposing one’s body to the sun’s rays dates only to the 1920s, as a “tourist fad” for the purposes of beautification:

The craze for hot sun and blue skies is hardly fifty years old, a fashion originally created by German naturists who wished to expose their bodies in comfort. Sunbathing became a cult which succeeded the virtues of drinking sea water, the doubtful benefits of being dipped in a very cold sea and the merits of breathing

mythical ozone-charged air. Until the 1920s, it was generally believed that the rays of the sun were injurious and debilitating (Cormack, 1998, p.115).

Note the words used by Cormack: fashion, cult, mythical. And here, in Mary Blume's 1992 history of the Côte d'Azur, sun tanning is explained as popularized during the 1920s by rich fashionistas:

By the late '20s the sunbathing habit was widespread [...] The first sunbathers were probably anonymous Scandinavians or Germans: it took names to make a habit chic. Already in 1919 the French tennis champion Suzanne Lenglen had refused to wear a corset or a hat .... Her arms were bare, except when covered by the white ermine coat she warmed up in, and her face deeply tanned. Then, in 1923, Coco Chanel descended the gangway of the Duke of Westminster's yacht, brown as a cabin boy (1992, p.74).

In both narratives, sun tanning is historically positioned as novel, fashionable and devoid of any real medical basis. Primary medical texts of the late 1890s and early 1900s suggest otherwise. John Harvey Kellogg, in his 1910 book *Light Therapeutics*, declared that he had been using sunbaths in Michigan since 1876 (p.10). Indeed there is a wealth of primary texts and images that suggest a much earlier beginning to the history of the *bain de soleil*, many of which are presented here from the Osler's collection. This history is also intertwined with late nineteenth-century developments in laboratory medicine, the discovery of germ theory, and experiments in light physics.

Physicians were aware that scientists such as Arthur Downes, Thomas Blunt, Louis Pasteur, and Robert Koch had published studies on the antibacterial properties of light. Koch had demonstrated that ultra-violet rays destroyed bacteria, most importantly the tuberculosis bacillus. The experiments of the destructive action of light on bacteria by Downes and Blunt of 1877 are referenced frequently in heliotherapeutic handbooks, irrefutable proof of the efficacy of sunlight in combating tuberculosis. In a French publication of 1897, *Hygiène populaire et moniteur de la santé*, Kellogg asserted that the sun was "...the most powerful of all natural antiseptics; no morbid germ can resist the direct rays of the sun, cholera, consumption [tuberculosis], diphtheria, scarlet fever and typhoid fever, and other diseases."<sup>2</sup> If sunlight could kill bacteria spread onto a microscope's glass slide, it could kill bacteria living in the blood and tissues of the tubercular patient. Penetrating the epidermal layers, the sun's luminous rays could activate the body's vital forces, initiating a reaction that would spread throughout it entirely. Physicians described sunlight as a source that activated nutrition, excited the tissues, increased circulation of the blood, and improved respiration.<sup>3</sup> In this way it was understood as a natural regenerative agent.

Furthermore, physicians rapidly adopted the emerging vocabulary of germ theory to promote sunlight as naturally bactericidal: “The blood absorbs a great amount of violet rays, it is true, but the chimera that is light is not entirely exhausted by its contact, and its invigorating and bactericidal properties have a deeper zone of penetration.”<sup>4</sup> Clearly heliotherapists and phototherapists were actively experimenting with the latest scientific and medical discoveries. Sun-tanning, in this context, was no trivial fashion trend.

This, of course, is also the period during which Wilhelm Conrad Röntgen was credited with the official and published study of x-rays, in 1895, for which he won the first Nobel Prize in Physics (though he was among many scientists conducting experiments on rays in the 1890s). Soon afterwards Marie Curie discovered polonium and radium, radioactive substances, and these greatly enhanced the development of radiotherapy. For her research in physics (1903) and chemistry (1911), she was awarded two Nobel Prizes. This was therefore a fertile period in the field of light physics and light therapeutics, sanctioned by the Nobel foundation and internationally recognized.

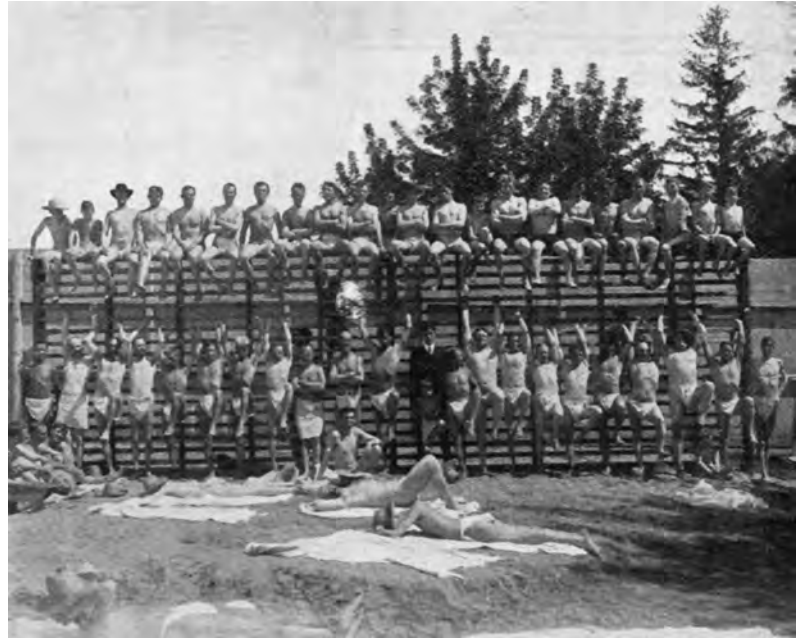


Fig.2 “Indoor Sun-Bath,” from J.H. Kellogg, “Heliotherapy,” in S.S. Cohen, ed. *A System of Physiologic Therapeutics*. Vol. 9. London: Rebman, 1902, p.215.

## METHODS

Just as there were numerous practitioners, there were numerous heliotherapeutic modes of application. Kellogg's early image of an isolated patient undergoing an indoor sunbath (Fig.2) – a general application to the entire body, yet through glass panes – is quite different from his later photographs of men lounging outdoors on towels within the grounds of his Michigan sanatorium, Battle Creek (Fig.3).

Fig.3 Untitled photograph of men sun-bathing, from J.H. Kellogg. *The Battle Creek Sanitarium System: History, Organization, Methods*. Battle Creek, Michigan: [S.I.], 1909, p.148.



In Dr A. Aimes' publication of 1914, *La pratique de l'héliothérapie*, we are presented with a haphazard scene of children, unclothed but for a white loin cloth and protective hat, sitting before a makeshift solarium, and by the caption the author infers how inexpensive the sun-cure can be made available to all (Fig.4).



Fig.4 "Solarium installé à peu de frais au moyen d'abris de toile," from A. Aimes. *La pratique de l'héliothérapie*, 2<sup>nd</sup> ed. Paris: A. Maloine et Fils, 1914, unpag.

Likewise the positions of the patients, the equipment used on them, and their exposure times differed remarkably. Known as the “High Priest of modern Sun-worshippers,”<sup>5</sup> Auguste Rollier created several outdoor sanatoria in the Swiss mountains for tubercular adults and children. Rollier advocated a total body treatment of natural sunlight, not simply for specific lesions on the surface but for a holistic, immune-boosting regeneration of the whole body.

He illustrated his method by means of a highly artistic, anatomical drawing of a male figure (Fig.5), sectioning areas of the body according to sunlight exposure. This was a highly systematised, progressive process of exposure to sunlight, starting with the feet and always avoiding the head, for fear of sunstroke.

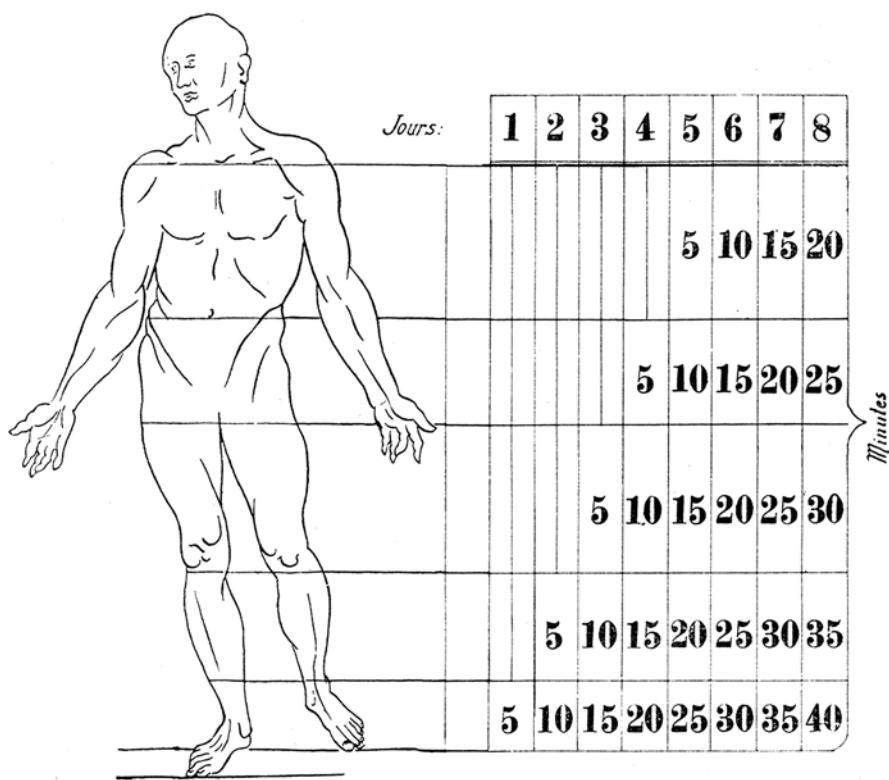


Fig.5 Exposure chart from A. Rollier. *La cure de soleil*. 2<sup>nd</sup> ed. Paris: Librairie J.-B. Baillièrè et Fils, 1936, p.39.

This chart indicates that Rollier and his staff monitored his patients intensely. Yet in photographs accompanying his various publications, patients are shown receiving sun treatment in surprisingly different circumstances: in figure six, a child is strapped to a bed, wearing only a loincloth for coverage in the alpine air. His nurses wheel him onto a terrace for treatment; in figure seven, children are skiing in the same loincloths, exposing their bodies while engaging in physical activity on the mountain slopes.



Fig.6 "Arrivée d'un malade sur le solarium à l'aide de l'ascenseur," at "Les Frênes" clinic (Leysin), from A. Rollier. *La cure de soleil*. Paris: Baillièrre & fils; Lausanne: C. Tarin, 1915, p.60.

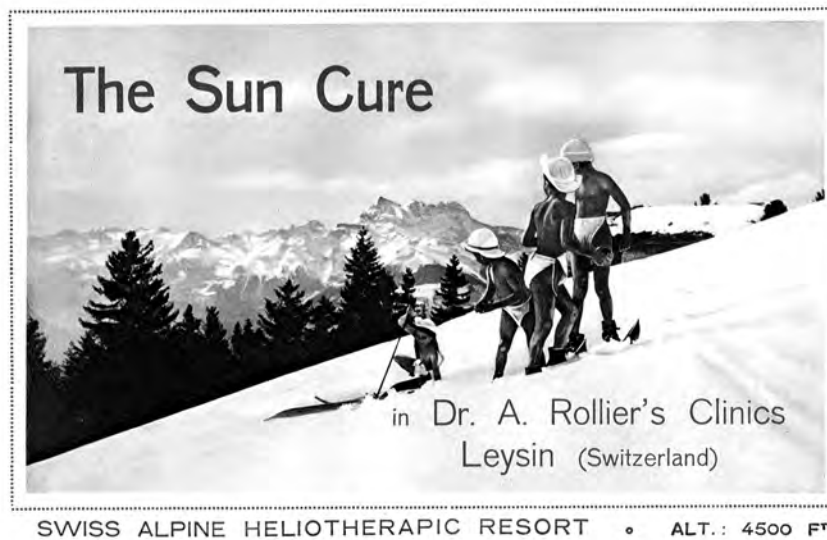


Fig.7 Front cover of *The Sun Cure in Dr. A. Rollier's Clinics, Leysin (Switzerland), Swiss Alpine Heliotherapeutic [sic] Resort*. [S.l.]: Thomas Cook and Son, c.1921



They are seemingly unmonitored, free and left to their own devices outside of the sanatorium grounds. Happy, unfettered and liberated, such “patients” appear a far cry from the drawn figure of Rollier’s systematized chart.

Games, sports, and heliotherapy are portrayed in many of Rollier’s photographs as complementary activities, enervating and pleasurable for the child. For Rollier, this was an essential part of the treatment:

The children, - convalescent, delicate, or simply predisposed to tuberculosis, - live there [in Leysin] in the countryside. They share their time between exercises of respiratory gymnastics, walks, small tasks at the farm or in the garden, and school exercises. The beginning is always careful and progressive, so that acclimatisation of the newcomers is consistent and smooth.<sup>6</sup>

In other words, once the children had sufficiently acclimated to the intense sunshine at such a high altitude, they could spend hours and hours engaging in outdoor pursuits to maximize sunlight exposure.

At the same time that Rollier was opening his sanatoria in the Swiss mountains, an establishment entitled Sylvabelle in La Croix-Val-Mer, near Saint-Tropez on the Côte d’Azur, opened in 1904 as an explicitly naturist sanatorium, under the supervision of a Dr Albert Monteuis. Monteuis wrote extensively on heliotherapy and other natural therapies. He promoted heliotherapy as a natural treatment for the benefit of all citizens suffering from chronic illness.<sup>7</sup> His book on air, light, and sunbaths was first published in 1904, translated into English as early as 1907, and republished in 1911. A member of the *Société française d’hygiène de Paris*, he first practised exclusively on the northern coast, on the beach of Malo, and was a native of Dunkerque. By 1904, he would practice in Dunkerque in the summer and at Sylvabelle in the winter until approximately 1910, later practicing in Nice. His facility was captured in postcards showing an isolated haven for the patient in need (Fig.8).



Fig.8 “Sylvabelle – La Croix (Var). Maison Médicale de Régimes, Hélio-thérapie, Hydrothérapie, Massages. Établissement et Terrasse dominant la Baie de Cavalaire,” postcard, c.1912.

In his 1907 edition on sun, light, and air baths, Monteuuis described the *bain* or *cure de soleil* as a general exposure of the unclothed body to the sunlight outdoors, as Rollier would also advocate. To perform the cure, the patient would lie in a sheltered place on a mattress, turning every few minutes. This was called the “direct bath.” It was followed by the patient being wrapped in blankets for what was called an “indirect bath,” meant to produce perspiration and thus the opening of the pores (Monteuuis, 1907, pp.54-55).

It was Monteuuis’s hope to popularize heliotherapy for the benefit of all citizens suffering from chronic illness. His goal was made obvious in the modification of the title of his 1911 republication: *L’usage chez soi des bains d’air, de lumière et de soleil; leur valeur pratique dans le traitement des maladies chroniques et dans l’hygiène journalière*, with the emphasis on home treatment and daily hygiene for the chronically ill (“chez soi”). One could take a *bain de soleil*, he said, in the bedroom, in a hotel room, or in the garden. Monteuuis’s 1911 title implies that patients could take individual responsibility for their own cure, but only if armed with the right medical knowledge.

## **PHOTOTHERAPY**

Finsen is known as the inventor of phototherapy or artificial light therapy, and for this he won the Nobel Prize for Medicine in 1903, being the third person to win it in this category. He died from Pick’s disease the year after. He began experimenting with natural and, soon afterwards, artificial light from the early 1890s in order to treat lupus. In 1896 he founded the Medical Light Institute in Copenhagen, Denmark. It was later known as the Finsen Institute and was funded by the state, which gives some indication of how quickly his research was widely accepted and encouraged (Kassabian, 1907, p.517).

Finsen’s experiments with light began through an observation of its negative influence on variola, also known as smallpox. He realised that, if the patient was placed in a room totally devoid of all but red light within the first stages of smallpox, known as the stage of vesiculation or blistering of the skin, the disease did not develop into the stage of suppuration (in which pus would discharge from the small blisters). By doing so the patient could heal with little or no scarring. To do this, he created a room where all the windows were covered by thick, red cloth or a dense, red glass, to filter out all but red rays – rather like a photographer’s darkroom.

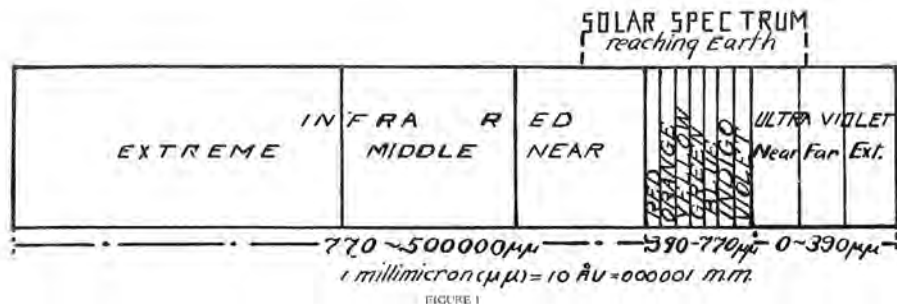


Fig.9 Solar Spectrum, from W.D. Chesney. *Infra Red Rays and the Lower Frequencies of the Luminous Spectrum in Therapeutics*. Educational Series no.4, Chicago: McIntosh Electrical Corporation, 1920, unpag.

Finsen explained that the red light of the spectrum was the weakest in terms of concentrated chemical action. Red light is furthest on the spectrum from ultra-violet (UV) and violet light, highest in chemical or “actinic” as well as bactericidal action (Fig.9). Finsen then focussed on the ultra-violet end of the spectrum to treat lupus, using them, in the words of phototherapist Charles Warrenne Allen, “with a view to destroying the germs and the impaired tissue in parasitic and germ diseases. At no time does the treatment assume the form of a simple stimulation to the tissues, the action always understood to be either a cauterant of mild character or a reducing agent” (1904, pp.426-427). Here UV rays were first employed by Finsen for their destructive action.

Finsen published his findings throughout the 1890s in Danish, and later these were gathered and translated into English as early as 1901, in a book simply called *Phototherapy*; the French version appeared in 1903, though shorter works of his had already been published in French and German by 1899. Before-and-after photographs of lupus patients were included in all of these publications (Fig.10). The photographs here are employed for their documentary function, to record the progress of the treatment and of healing, evidence of the efficacy of light therapy.



Fig.10 Before and after photographs of an anonymous lupus patient, from Drs Leredde and Pautrier, *Photothérapie et photobiologie: rôle thérapeutique et rôle biologique de la lumière*. Paris: Masson, 1903, p.209.

## METHODS

Finsen explained that he began with natural sunlight modified through glass, but after realizing UV rays cannot pass through ordinary glass, he switched to quartz lens. He later moved to electric light devices, needing more concentrated and readily available rays at his disposal (Fig.11). Finsen also developed skin compressors, in order to compress the skin and tissues around the sore and remove blood from the area, which he discovered greatly facilitated the treatment by allowing the light to penetrate deeper. In figure eleven, the compressor is used on the cheek of the male patient in the left foreground; a nurse holds his head still so that the long tube of the machine can point directly at the compressed area, and both patient and nurse wear protective goggles to shield their eyes from the damaging UV rays.



Fig.11 "Apparatus for Localized Electrophototherapy. – (Finsen.)," from J.H. Kellogg, "Heliotherapy," in S.S. Cohen, ed. *A System of Physiologic Therapeutics*. Vol. 9. London: Rebman, 1902, p.229.

Kellogg himself went to Copenhagen, in 1899 and 1902, to visit Finsen at his Light Institute. At the Battle Creek Sanitarium, Kellogg continued to experiment with natural and artificial light, inventing his own machines and special devices (Fig.12):

Phototherapy holds a very prominent place in the Battle Creek Sanitarium System. It is here that the incandescent light was first utilized as a therapeutic means. Here the first electric-light bath was constructed. The original model devised and still in use here has been closely followed by those who have employed this bath in various parts of the world. At the present time, this important therapeutic means is recognized and utilized by progressive therapists in all civilized countries. Thousands are in use in the leading hospitals and sanitariums of Europe, and the value of this bath is rapidly coming into recognition in this country (Kellogg, 1909, p.85).

Various types of lamps were developed, each manufacturer or doctor declaring its superiority over all others. Our exhibition “showpiece” is a quartz lamp of c.1920-1925, the Hanau “Sollux” (Fig.13).

Fig.12 “Author’s Horizontal Incandescent Electric Light Cabinet,” from J.H. Kellogg, “Heliotherapy,” in S.S. Cohen, ed. *A System of Physiologic Therapeutics*. Vol. 9. London: Rebman, 1902, p.233.



Fig.13 Hanau “Sollux” Quartz Lamp, c.1920-1925. Donated to the Osler Library, McGill University, by Dr. Shena Rosenblatt Sourkes and Dr. Theodore Sourkes.

It was donated to the Osler Library by Dr Shena Rosenblatt Sourkes and Dr Theodore Sourkes. The lamp originally belonged to Dr Rosenblatt Sourkes' mother, Dr Ginda Rosenblatt, a Russian physician practising at the time in Romania (in the region now known as the Moldavian Republic) during the 1920s. The lamp was used on many patients, for any and all complaints, but especially pulmonary tuberculosis. She and her family immigrated to Canada soon afterwards, bringing the lamp with them but never using it again. Colour filters of red and blue glass could be added in order to change the intensity and type of luminous rays allowed to pass through on to the patient, depending upon the illness and required treatment.

Major themes are present within the primary literature and images around both heliotherapy and phototherapy, tensions and inconsistencies that deserve further exploration. What, for example, is "natural" about these natural therapies? Is our relationship with the sun instinctual? And are these images documentary or in fact highly constructed, even manipulated, representations of light therapy that pass themselves off as natural, pleasurable, and liberating? Were these therapies enjoyable or comfortable processes for the patients? In these manuals, do the texts and the images correlate or challenge each other?

## NATURAL AND ARTIFICIAL

*"In all ages there have been Sun-worshippers. It could not be otherwise. Terrestrial life craves for the golden rays."* (Sir John Henry Gauvain, in Rollier, 1923, p.ix)

In Sir J. Henry Gauvain's quote, included within a preface to Rollier's 1923 British publication *Heliotherapy*, sun-therapy is described as little different from sun-worship. In doing so, Gauvain described the highly regimented and surveyed medical processes of light therapeutics as something instinctive and thus *natural*. Investing in natural means and natural forces was the premise behind heliotherapy and, at least initially, behind phototherapy. Kellogg himself referred to his system as the "physiologic" or "natural" method, yet he warned his readers that the use of simple elements - light, air, water - was by no means a simple task for the layman: "The application of the physiologic method requires much more than simply a knowledge of the technique of baths, electricity, movements, etc. It especially requires a knowledge of physiology, and an intelligent grasp of all the resources of modern medical science" (Kellogg, 1909, p.15). Another contributor to Rollier's 1923 book, Caleb W. Saleeby, put it more bluntly: "In spite of its apparent simplicity, the practice of heliotherapy demands great attention to detail and constant supervision" (p.vii).

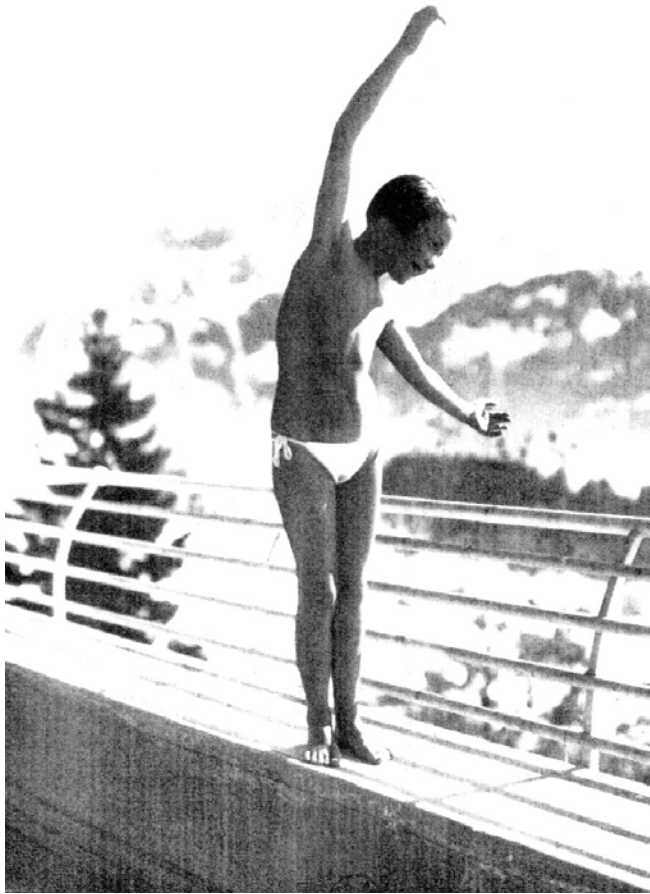
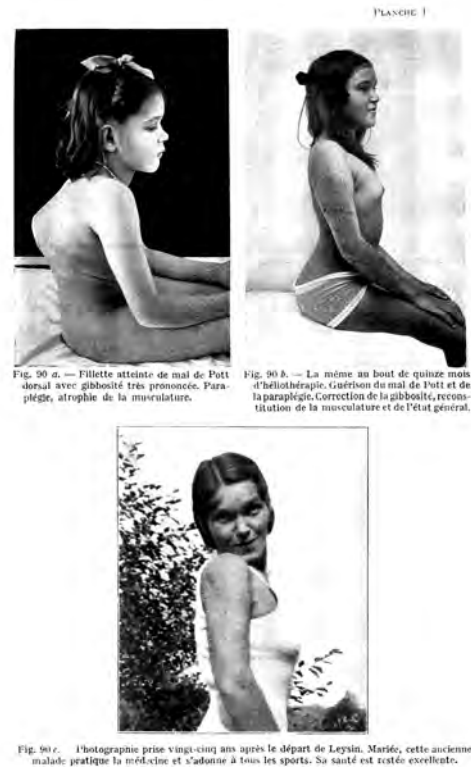


Fig.14 Untitled frontispiece of A. Rollier. *Quarante ans d'héliothérapie*. Lausanne: F. Rouge, Librairie de l'Université, 1944.

Figure fourteen is a photograph of a young girl, almost nude, on the balcony of one of Rollier's Leysin sanatoria. As a patient at his facility, the child in Rollier's photograph would have followed a strict medical regime throughout the day.<sup>8</sup> Yet does the photograph suggest this? It absolutely does not. With her giddy, playful gestures and shameless presentation of her almost naked body, she expresses the feeling of total bodily liberation. The extreme contrasts of light and shadow across her body and on the platform indicate she is receiving the direct impact of brilliant, unobstructed sunshine. It is so bright that in this photograph her upright arm loses contour, dissolved by the light. Equally, the whiteness of her minimal clothing contrasts with her bronzed skin, denoting that she is familiar with the practice and is healing well. In numerous before-and-after photographs, the contrast between light and dark is emphasized to maximum intensity (Fig.15), with "before" photos often taking place in darkened interiors to contrast with the patient's extreme pallor and "after" photos shot outdoors or in front of white backgrounds to heighten bronzed, healed skin. The effect is highly convincing, explaining comments by physicians about seemingly miraculous recoveries. As Monteuuis once declared, "The regenerating action of the sun is so profound that it produces...actual resurrections..." (1911, p.42).

Fig.15 “Fillette atteinte de mal de Pott dorsal avec gibbosité très prononcée. Paraplégie, atrophie de la musculature.” “La même au bout de quinze mois d’héliothérapie. Guérison du mal de Pott et de la paraplégie. Correction de la gibbosité, reconstitution de la musculature et d’état général.” “Photographie prise vingt-cinq ans après le départ de Leysin. Mariée, cette ancienne malade pratique la médecine et s’adonne à tous les sports. Sa santé est restée excellente.” A. Rollier. *La cure de soleil*. 2<sup>nd</sup> ed. Paris: Librairie J.-B. Bailière et Fils, 1936, planche I.



## ANCIENT AND MODERN

*“With rare exception, all people worship the sun in their pantheons under different names. It was especially around the basin of the Mediterranean, cradle of all civilisations, that the cult of the sun [sun worship] took a considerable development.”<sup>9</sup> (Malgat, 1911, p.8)*

This passage by Malgat was included in his historical justification of heliotherapy, tracing its origins back to primitive peoples and antiquity. This was a common practice of light therapists, who sought to provide an ancient justification for their radical interest in sunlight.



The word *cult* crops up repeatedly in heliotherapeutic material and appears to have been employed by physicians to naturalise new medical conceptions of the sun occurring during the late nineteenth century: the transition from man's instinctive, ritualistic relationship with the sun to a modern medical one. It was common among these physicians to establish an ancient and natural heritage for their treatment, citing Hippocrates, Celsus, and Galen as the original advocates of sun baths (Rollier, 1923, p.1). Such ancient heritage, however, did not interfere with the simultaneous belief that light therapeutics occupied the forefront of progressive medicine, especially following Finsen's discoveries in the curative potential of light for lupus and his subsequent Nobel Prize (Allen, 1904, p.426). Faith in modernity's new possibilities, in electric light, X-rays and radiotherapy, drove many physicians to expound at length the near-miraculous powers of light therapeutics; for Dr Allen, praising "luminaries" like Finsen gave way to poetic declarations:

Though exaggerated optimism should be warned against, still it seems to me the time has arrived when we must lay aside doubts, fears, and prejudices and realize that we are entering upon an entirely new era in the science of medicine, whose horizon grows brighter the more we strive to penetrate it. Our present efforts will be largely expended in a study of these newer agencies as applied to the detection and cure of disease. Nothing need be said of the numerous workers in these new spheres of discovery. Their achievements are of themselves far too luminous to require any laudatory remark, and no brilliancy of verbiage could add to their lustre (Allen, 1904, pp.18-19).

Wittily enough, he attempts to do so anyway. Returning to the images themselves, it is perhaps not surprising that Allen would go to such literary extremes. The transformations shown – from open, suppurating wounds, disfiguring and unsightly manifestations of tuberculosis, or painful-looking bone malformations to bronzed, closed skin, bodies whole, upright and healed, and smiling faces – are, quite simply, extraordinary.

## PLEASURABLE AND PAINFUL

*"For beginners the sun bath should last for a quarter of an hour only, but afterwards the bath may be prolonged for an hour or even longer, for the patient experiences a feeling of comfort and relief all the time."* (Monteuuis, 1907, p.55)

The photographs of children laughing and playing in the sunlight, or of happy results in “after” pictures, correlate to Monteuuis’ explanation that treatment by light produced relief, even euphoria, in the patient. In other visual instances, however, patients are being treated in such a way as to suggest tremendous discomfort with the procedure: held down, encased, bound by the hands of the nurse, by cloth or by leather straps (Fig.11).

Fig.16 “At this distance the lens is directing rays over the area seen on the patient’s chest. This represents an application to affected portion of the chest in tuberculosis,” from S.H. Monell. *A System of Instruction in X-ray Methods and Medical Uses of Light, Hot-Air, Vibration and High-Frequency Currents: Prepared especially for the Post-Graduate Home Study of Surgeons, General Physicians, Dentists [etc.]*. New York: E. R. Pelton, 1902, p.704.

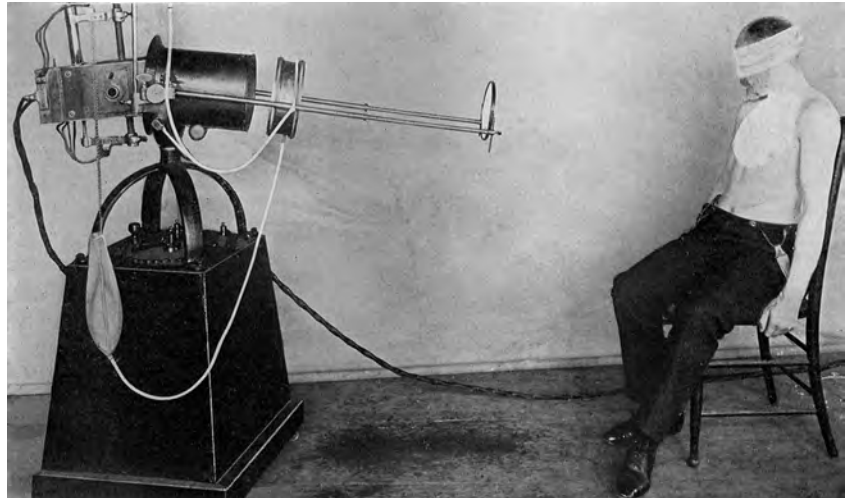


Figure sixteen is even more extreme: a photograph of a patient blind-folded (one assumes in lieu of protective goggles), arms grasping his chair, shirtless and motionless in front of an electric light machine that resembles a large gun more than a lamp. However, we have little indication of the patients’ personal experiences of the process of the treatment, and they remain anonymous entities within the manuals. In other cases, models or stand-ins who are clearly not patients turn up to demonstrate the techniques for using phototherapeutic equipment.

By the 1920s, physicians such as Kellogg began incorporating images that appear more like contemporaneous advertisements. Unlike the photographs of patients being treated by phototherapy for lupus, in figure seventeen we are presented with a fresh-faced, smiling model, coiffed in the latest 1920s crop. The impression is that this phototherapeutic treatment is neither uncomfortable nor distressing, but in fact an enjoyable process. The ambiguity of her surroundings, resembling a photographer’s studio, is heightened by the impossibilities of the scene: the rays of the lamp (which itself appears hand-drawn) shine on her chest and yet continue undisturbed beyond her. And note her poise, the artificiality of her body position, even her heels. It is clear this is no patient.

It is, all in all, an odd thing, made even more odd by its context: it is from a book that is specifically addressed to students and practitioners of phototherapy, therefore not for the lay public or even necessarily for the patient. In images of the arc light on the model's chest, we are given a privileged, eroticised view of female flesh, clad in Art Deco attire and frilly undergarments. Her hairstyle and clothing are in keeping with the date of this second edition (1927). The extreme artifice of the image – of her pose, of her status as patient, of her supposed usage of the device, and of the photograph's manipulation itself – is made all the more resonant when viewed side-by-side with the image from Kellogg's original, first edition of the manual of 1910 (Fig.18). Paired together, the effect is one of freedom as opposed to constraint, enjoyment to indifference, pleasure to discomfort.

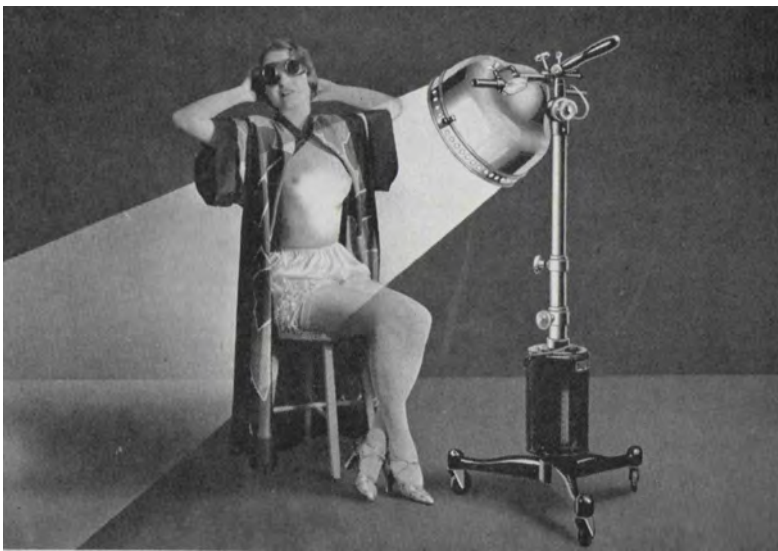
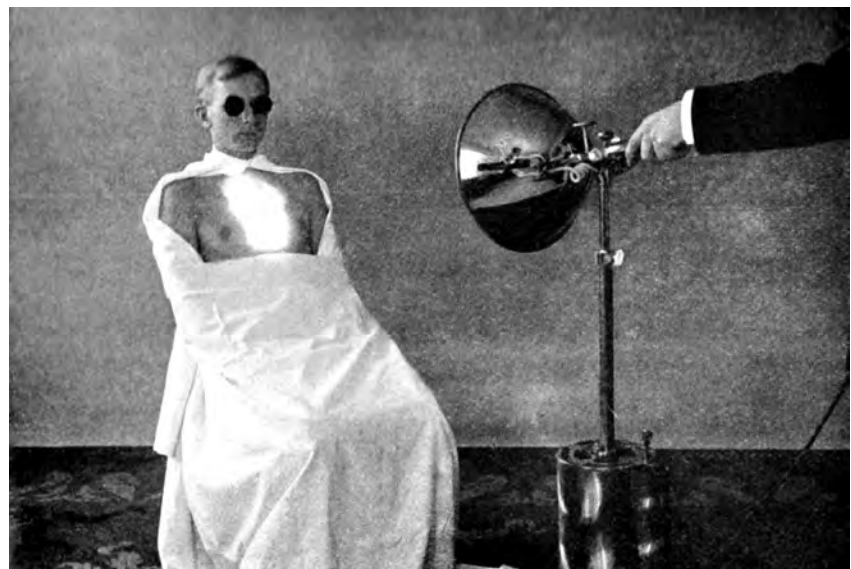


Fig.17 "Arc Light to the Chest," photomontage [?], from J.H. Kellogg. *Light Therapeutics: A Practical Manual of Phototherapy for the Student and the Practitioner*. Battle Creek, 1927 [2<sup>nd</sup> edition], opp. p.108.

Fig.18 "Arc Light to the Chest," photograph from J.H. Kellogg. *Light Therapeutics: A Practical Manual of Phototherapy for the Student and the Practitioner*. Battle Creek, 1910 [1<sup>st</sup> edition], opp. p.94.



## CONCLUSIONS:

As late as 2001, in his book *Sultry Climates: Sex and Travel since the Grand Tour*, Ian Littlewood stated:

Like the fashion for visiting spa towns and, later, seaside resorts, sunbathing called medical evidence in its support [...] But among tourists, considerations of health and virtue were secondary. As a reason for doing what is pleasurable, medical arguments, like moral ones, have always been suspect [...] Medical opinion played its part in promoting sun-worship, but the new fashion owed more to an instinctive recognition of the sun as a source of well-being (pp.197-198).

Littlewood's account of the history of sun therapy positions medical opinion as a convenient afterthought or a conspiratorial falsity used to justify "instinct." Unfortunately, this reading of history is not just misinformed but lazy. The wealth of medical evidence in the Osler Library contradicts popular accounts of the history of light therapies. So too does the visual material complicate and enrich that history, an agent actively participating in the formation of historical perspectives. In a diagram by Dr Théo Nogier, for instance, the production, transmission and utilisation of the sun's rays are visualised in a surprisingly artistic way (Fig.19). One might well ask why should this be necessarily depicted in such a manner? What kinds of aesthetic choices have been made by this physician to convey the sun's action on plant and animal life? Like Kellogg's model-patients and photomontages, aesthetic preoccupations directed visualizations of the treatments, their effects and their efficacy.

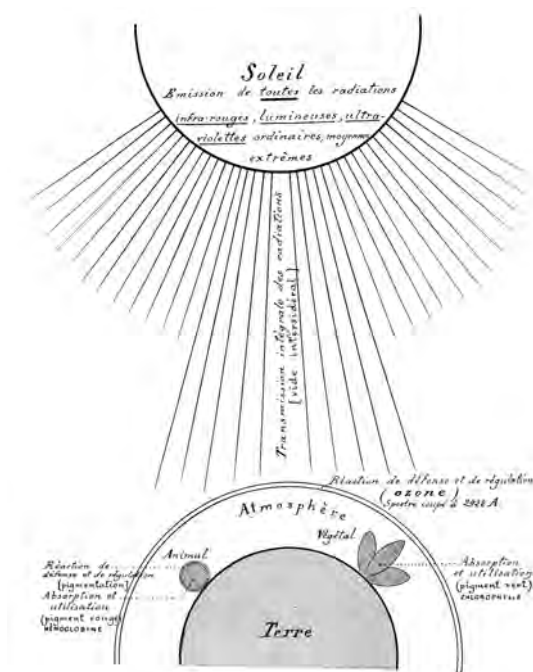


Fig.19 "Schéma représentant la production, la transmission et l'utilisation des rayons émis par le Soleil," from T. Nogier. *Les bases scientifiques de la thérapeutique par la lumière (Rayons visibles et rayons invisibles)*. Lyon: L'Avenir médical, 1913, p.13.

Guided by such visual and textual material, light therapeutics emerges as simultaneously scientifically advanced and, for all intents and purposes, magically healing. Indeed, Kellogg used these exact descriptions in his 1910 *Light Therapeutics*:

Under the magic influence of these miracle-working rays, the elements found in earth, air and water are organized into molecular groups, some comprising thousands of atoms, the breaking up of which, as the result of vital activity, liberates the light energy employed in holding together these organic unities, permitting the energy thus set free to manifest itself in muscular and mental effort, and various other forms of vital work (pp.23-24).

Note not only his use of the words magic and miracle-working, but the metaphor of power and liberation to describe the process of light upon life. The photographs and other illustrations in light therapy manuals provide that conviction: the “after” picture convinces us of the efficacy of the treatment, of its magic. But are the physical processes at work here to create that effect – that magic – those of the light treatment or the photographic process?

The images exhibited here depict a rich and complex view of the intertwined histories of heliotherapy and phototherapy. Yet approaching them, the historian requires constant critical awareness that such material is at once document and representation.

- Dr Tania Anne Woloshyn

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## Endnotes

<sup>1</sup>“De même qu’il est le principe de toute vie, le soleil est la source de toute guérison. C’est le Soleil, et uniquement le Soleil, que les malades viennent chercher pendant l’hiver sur notre littoral. Il est le Grand Médecin, Docteur de la Faculté du Ciel, auquel ceux qui souffrent viennent demander la guérison de leurs maux.” J. Orgeas, *L’hiver à Cannes. Guide descriptif, historique, scientifique, médical et pratique* (Cannes: Figère et Guiglion, 1889), p.466.

<sup>2</sup>“...le plus puissant de tous les désinfectants naturels; il n’est pas de germe morbide qui résiste aux rayons directs du soleil, choléra, consommation, diphtérie, fièvres scarlatine et typhoïde, et autres maladies.” J.H. Kellogg, *Hygiène populaire et moniteur de la santé* (Bâle: Librairie Polyglotte, 1897), p.108.

<sup>3</sup>“La lumière, en même temps qu’elle tue les germes infectieux, dessèche la plaie, excite la circulation des tissus, augmente l’hémoglobine, favorise les échanges endosmotiques, et par suite la formation des cellules normales.” E. Onimus, *L’hiver dans les Alpes-Maritimes et dans la Principauté de Monaco; climatologie et hygiène* (Paris: G. Masson, 1894), p.294.

<sup>4</sup>“Le sang absorbe, il est vrai, une grande partie des rayons violets, mais le chimisme de la lumière n’est pas entièrement épuisé à son contact, et ses propriétés stimulantes et bactéricides ont une zone de pénétration plus étendue.” Dr Gilli, “La cure solaire pratique en phtisiothérapie,” *1er Congrès français de climatothérapie et d’hygiène urbaine, tenu à Nice du 4 au 9 Avril 1904* (Monaco: Imprimerie de Monaco [Nice: Imprimerie de l’Eclaireur], 1904, pp.455-62), p.456.

<sup>5</sup>Sir J.H. Gauvain, “Foreword,” in A. Rollier, *Heliotherapy* (London: Oxford Medical Publications; Henry Frowde and Hodder & Stoughton, 1923), p.xi.

<sup>6</sup>“Les enfants, - convalescents, délicats, ou simplement prédisposés à la tuberculose, - vivent là en pleine campagne. Ils partagent leur temps entre les exercices de gymnastique respiratoire, les promenades, les petits travaux agricoles ou de jardinage et les exercices scolaires. Les débuts sont toujours prudents et progressifs, afin que l’acclimatation des nouveaux venus s’effectue régulièrement et sans à-coups.” A. Rollier, *L’école au soleil* (Paris: Baillière et Fils; Lausanne: Constant Tarin, 1915), p.15.

<sup>7</sup>“Le plus utile que je puisse remplir est, à mon avis, de faire oeuvre de vulgarisation, de travailler à mettre entre les mains de tous, un moyen aussi simple que puissant, pour les gens du monde et le peuple de fortifier la santé, pour les praticiens de traiter les maladies chroniques.” A. Monteuis, *L’usage chez soi des bains d’air, de lumière et de soleil; leur valeur pratique dans le traitement des maladies chroniques et dans l’hygiène journalière* (Paris: A. Maloine, 1911), p.8.

<sup>8</sup>In the same book (1944), he described the daily schedule of the children at his facilities: “L’horaire journalier de l’École au Soleil est le suivant:

7 h. Réveil, bains, toilette.

7 h. 30 Déjeuner (laitages ou cacao, pain, beurre et fruits).

8 h. 10 École au grand air et au soleil (classes fixes et mobiles) exercices de gymnastique respiratoire et rythmique. En cas de mauvais temps, les leçons se donnent sur les terrasses couvertes ou dans les salles d’étude.

10-11 h. Exercices physiques, jeux, sports d’été ou d’hiver.

11-12 h. Repos et cure d’air.

12 h. Lunch (potage, céréales, légumes, entremets – très peu de viande – fruits).

13-15 h. Repos et silence au grand air, en position étendue, ventrale ou dorsale.

15 h. Collation (lait ou chocolat).

15 h. 30 Promenades, excursions, sports, jeux ou gymnastique.

17 h. Travaux scolaires.

18 h. 15 Dîner (comme à midi mais sans viande).

19 h. 30 – 20 h. 30 Gymnastique respiratoire, toilette, coucher.” A. Rollier, *Quarante ans d’héliothérapie* (Lausanne: F. Rouge & Cie, 1944), p.146.

<sup>9</sup>“A de rares exceptions près, tous les peuples admirent dans leurs panthéons le soleil sous des noms différents. Ce fut plus spécialement autour du bassin de la Méditerranée, berceau de toutes les civilisations, que le culte du soleil prit un développement considérable.” J. Malgat, *La cure solaire de la tuberculose pulmonaire chronique* (Paris: Librairie J.-B. Baillière et Fils, 1911), p.8.

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