

HISTORY OF LIGHT AND COLOR

Outline of Syntonic Basic Course History Section (1994)

by Bruce Rosenfeld, O.D., F.C.S.O.

Augustus Pleasonton - 1876

- stimulation of glands, nervous system and organs with blue light using the sun or electric lights; patents

Seth Pancoast - 1877

- stimulate/relax nervous system with red/blue light

Edwin Babbit, MD. - 1878

The Principles of Light and Color

- Light a unity of mind and matter; higher laws of nature; philosophy and therapy
- Instrumentation - treatment of diseases/imbances
- Color "poles" of the body - vision suggested as a gateway
- "Application of light rays in one spot can affect the entire blood stream through circulation and elimination of toxins."

Ocular Physical Therapy for Optometrists - Jack Kurtz - 1930

- Light is a modality along with diathermy, magnetism, message, nutrition, homeopathy and psychology

Spectro Chrometry Encyclopedia - Dr. Dinshah Ghadiali - 1933

- introduction by Dr. Kate Baldwin, MD., Fellow American College of Surgeons; Fellow American Academy of Ophthalmology and Oto-laryngology; Woman's Hospital Philadelphia - used for 12 years in her practice
- organs balanced by stimulation or inhibition with color
- anabolic/catabolic actions
- lemon - chronic situations; turquoise - acute situations

Through the 1920's and 1930's there is much work done by three men; Loeb, Henning, Spittler - a very potent trio. There is now more unity and synthesis of and from their work. A true chronology breaks down for they are working at the same time

A Course In Specific Light Therapy - Dr. Loeb, MD. - 1939

- Harmo Chromo Therapy (Actino Labs - chemical potency by light)
- light is a nutrient; with ether effects protoplasm
- psycho physical model
 - body types - anabolic/catabolic/metabolic
 - balance underactive/overactive function
 - age/sex/time of year/ time of day
- Green (mu) - balances physiology
- Blue Green (mu upsilon) - reduces fever (oxidation)
- Red/Indigo (alpha omega) - balances emotions by stimulating adrenals and energizing the heart in all chronic disturbances

The Fundamentals of Chrome Orthoptics - 1938

The Practice of Modern Optometry - 1939

Procedures in Refraction and Functional Disorders - 1940

all Dr. Wm. Henning, N.D., O.D.

- combines work of Loeb with light optics; stimulation/inhibition; accommodation/convergence; balance psychophysical
- body is self correcting but needs some assistance
- light (color); prism; lenses in that order
 - a. palliate (symptom relief) precedes correction
 - b. just color when findings vary/fluctuate (unstable)
 - c. spectacle Rx - minimum needed for adequate vision
- optometric case typing/case analysis - acc. amplitude, NRA/PRA, ductions (blur, break, recovery), phorias (lateral, vertical), dynamic retinoscopy
- stimulate with red, yellow, orange = minus lens = BO prism
- inhibit with blue/indigo/violet = plus lens = BI prism
 - yellow green (mu delta) - cleansing effect on tissues of the body
 - indigo (omega) - tension, motor depressant
 - blue green (mu epsilon) - pain/discomfort; asthenopia; inflammation
 - red indigo (alpha omega) - lowered response autonomically; emotional upset

T.A. Brombach - Univ. of California; Chief Dept. of Perimetry - 1936

Thomas Eames, MD. - Boston late 1930's and 1940's - various journals

- visual fields - color fields; endogenous/exogenous toxicities; blind spot size; non pathological; central field constrictions limit speed, visual perceptors; poor readers/educational disability cases smaller visual fields

S. V. Krakov - "Color Vision and Autonomic Nervous System"

Journal of Optical Society of America - 1942

College of Syntonic Optometry - 1932 - Eaton Ohio

- Harry Riley Spittler, D.O.S., MD., MS, Ph.D.
 - President Ohio State Board of Optometry;
 - First Vice President American Optometric Association, Fellow American Academy of Optometry; Clinician Macfadden Sanatorium (Michigan); physician in charge Crab Orchard Sanatorium (Kentucky)
- The Syntonic Principle - Its Relation to Health and Ocular Problems - 1941
- syntony - balance; autonomic nervous system, endocrine system by light (color) through the eyes
- Cameron Spittler Amblyo Syntonizer 1930 (?)
 - Alex Cameron, OD
 - different size targets and letters
- beginning in 1935 syntonograms/service bulletins/case reports/studies published by the college
 - subnormal accommodation, myopia, cataracts, asthenopia, headaches, subnormal vision and more (note 1952- including syntonists incorporating the work of Skeffington, Harmon, Gesell, Getman etc. for myopia reduction) (as they always had for all work)
- Quoting Pacini's Light and Health - 1925 - "The effects of visual stimuli in response to color can be observed upon blood pressure, upon muscular, nervous and mental activity." "There are many unfathomed depths in the psycho-physiological phases of light and color and particularly in the therapeutic application of colored light as stimuli operating through the doorway of vision."
- reference to Josephson's Glaucoma and Its Medical Treatment With Color, published by Chedney Press in 1937

- Spittler published in American Journal of Optometry 1932, 1936, 1937 and presented before the American Academy of Optometry
 - research with plants, animals and human clinical studies concerning light/color
 - cell biology, chemical-neuro-physiological
 - quantum theory
 - biotypes, electric potentials, pH, mineralizations, polarity, autonomic function, nerve reflexes, endocrines, circulation, smooth and striated muscle; synergy of autonomic by light frequency

A Brief Bibliography / Reference List

Light - The Medicine of the Future

Jacob Liberman, O.D., Ph.D. - 1991

The Syntonic Principle - Its Relation to Health and Ocular Problems

Harry Riley Spittler, D.O.S., MD., M.S., Ph.D. - 1941

Ocular Physical Therapy for Optometrists

Dr. Jack Kurtz - 1930

Syntonograms/Syntonic Case Reports - 1935

Spectrochrometry Encyclopedia

Dr. Dinshah Ghadiali - 1933

Let There Be Light

Darius Dinshah - 1979

The Fundamentals of Chrome Orthoptics

Wm. Henning, N.D., O. D. - 1938

The Practice of Modern Optometry

Wm. Henning, N.D., O.D. - 1939

Procedures in Refraction and Functional Disorders

Wm. Henning, N.D., O.D., - 1940

A Course in Specific Light Therapy

Carl Loeb, MD. - 1939

"Color Vision and Autonomic Nervous System"

S. V. Krakov - Journal of Optical Society of America - 1942

"Visual Fields" - Transcript of Lectures

T.A. Brombach - 1936

The Influence of Ocular Light Perception on Metabolism in Man and Animals

Fritz Hollowich, MD. - 1979

"The Effect of Natural and Artificial Light Via the Eye on Hormonal and Metabolic Balance of Man and Animals"

Hollowich and Dieckhues - Ophthalmologica - 1980

"Changes in Form Visual Fields in Reading Disabled Children Produced by Syntonic Stimulation"

Rocky Kaplan, O.D., M.Ed. - International Journal of Biosocial Research - 1983

"The Effect of Syntonic Stimulation on Certain Visual and Cognitive Functions"

Jack Liberman, O.D. - Journal of Optometric Vision Development - 1986

College of Syntonic Optometry Library

-additional articles published in optometric journals and presentations at optometry conferences

"Photo-biology,-therapy, and - periodicity"

J. Daubs, O.D., M.P.H. - New England Journal of Optometry - 1973

"Environmental lighting and neuroendocrine function relationship between spectrum of light source and gonadal growth."

R.J. Wurtman and J. Weisel, - Endocrinology - 1969

"Effects of light and visual stimuli on endocrine function"

R.J. Wurtman - Neuroendocrinology, 1967

"The influence of light via the eyes on animals and man"

F. Hollwich, - Annals of NY Academy of Sciences - 1964

"Photo-neuro-endocrine effects in circadian systems, with particular reference to the eye (the accessory optic system)"

E. Marg, - Annals of NY Academy of Sciences - 1964

"Medical and Biological Effects of Light"

R. Wurtman, Annals of NY Academy of Sciences - 1985

and much more and too many to begin to list . . .