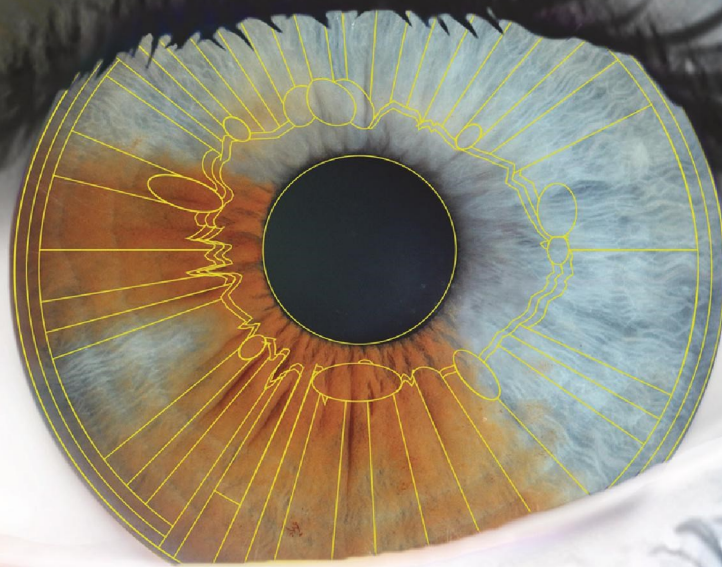


# ***Journal of Optometric Phototherapy***

*April 2015*



**The Autonomic Nervous System, the Pupils, and Color Receptivity**

**Iridology, an Overview for Syntonists**

**Iridology—Another Perspective**

**Lighting Up Lives 2015**

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THE THERAPEUTIC APPLICATION OF LIGHT TO THE VISUAL SYSTEM

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# The President's Message

Greetings Syntonists!

2014 proved to be quite a productive year for The College of Syntonic Optometry. We have enjoyed continuous interest from clinicians stateside as well as internationally in how to incorporate Optometric Syntonic Phototherapy into their practices. The International Congress of Behavioral Optometrists held their meeting in Birmingham, United Kingdom this past fall. I was heartened to see so many speakers include optometric syntonic phototherapy as part of their treatment regimen. I also presented on the use of solely binasal occlusion and optometric syntonic phototherapy for successfully treating an adult with sudden onset alternating esotropia in only eight weeks. We had standing room only for that lecture which was given in the last hours of the last day of the conference! Equally encouraging was the tremendous attendance we had for our "little dinner gathering" during ICBO. Instead of the anticipated twenty or so attendees getting together for dinner, we had over sixty-five attendees including **Dr. Susan Barry** of [Fixing My Gaze](#) fame! Kudos to **Geoff Shayler** for coordinating this fun event!

2015 promises to be another banner year. In March, **Marisa Kruger** will be giving a lecture at the Great Lakes Congress where she will include syntonics as part of her treatment modalities. In April, **Rob Fox**, our **CSO Vice President**, will be giving a two hour lecture at COVD on the use of syntonics as part of his regimen for addressing visual consequences of acquired brain injuries. Yours truly will also be part of a rapid fire panel at COVD, twenty minute sessions, on the use of syntonics for strabismus. Then, in June, part of our CSO teaching faculty will be back in **Oswego, IL** (suburb of Chicago) for the **Syntonic Phototherapy 101** course.

Of course, the icing on the cake will be our annual **International Conference on Light and Vision** in the historic city of **Santa Fe, New Mexico, Oct. 27<sup>th</sup> – 31<sup>st</sup>**. Our director of education, **Larry Wallace**, has another great line up of speak-

ers for both our pre-conference workshops as well as the advanced courses on Friday and Saturday. The Basics 101 course will also be given by the full faculty of CSO on Tuesday and Wednesday, so no excuses for not finding the information and clinical skills you need to take back to your patients!

Looking forward to crossing paths with many, many of you this year! Please continue to share the light! So many of our patients need this powerful clinical modality!

For expanding horizons and greater balance in 2015,

Mary VanHoy, OD, Your CSO President



*Displaying our CSO cake made by Geoff's daughter-in-law.*



*Geoff Shayler manning our CSO exhibit table at ICBO as well as our CSO Dean, Ray Gottlieb.*

# The Autonomic Nervous System, the Pupils, and Color Receptivity

Larry B. Wallace, O.D., Ph.D., F.C.S.O. 2015

**Abstract:** This paper will attempt to show some of the complexity of the autonomic nervous system (ANS) including recent and contemporary theories of ANS function. New technology allows measurement of the ANS through the pupil reflexes using the RAPDx pupil meter. The data obtained from several patients will demonstrate changes to pupil readings in response to prescribing Syntonic colors. It is postulated that the ANS has many levels of dysfunction that may be seen in the afferent defects of the pupil to white and colored light stimuli. Changes in the pupil is a common diagnostic marker in Syntonic Phototherapy called the Alpha-Omega Pupil. The pupil is very significant for diagnosis and charting changes that parallel those of visual skills and fields to judge therapeutic efficacy. With this technology the practitioner can measure the pupil in very subtle ways in response to white and colored light. The outcomes reported raise many questions about treatment protocols and the nervous system's receptivity to light.

It is the common perception that the autonomic nervous system plays a major role in the body and mind's homeostasis. The principle of Syntonics and Dr. Harry Spitler's work is that applied light frequencies through the eyes balances the autonomic nervous system and treats vision problems at their source. A major look at how light affects the nervous system is seen by observing the pupil responses to light. In the field of Syntonic Phototherapy the pupil is observed and graded according to the amplitude and latency of the pupil's response to direct illumination. Observing the pupil gives the practitioner insight in real time about the balance of the autonomic nervous system. To illustrate the complexity of the ANS a review of historical and contemporary theories is necessary.

The autonomic nervous system (ANS), also known as the visceral nervous system and involuntary nervous system, is a division of the peripheral nervous system that influences the function of internal organs.<sup>1</sup> The autonomic nervous system is regulated primarily by the hypothalamus. The sympathetic nervous system is often considered the "fight or flight" system, while the parasympathetic nervous system is often considered the "rest and digest" or "visceral system. In many cases, both of these systems have "opposite" actions where one

system activates a physiological response and the other inhibits it. An older simplification of the sympathetic and parasympathetic nervous systems as "excitatory" and "inhibitory" was overturned due to the many exceptions found.

*A more modern characterization is that the sympathetic nervous system is a "quick response mobilizing system" and the parasympathetic is a "more slowly activated dampening system."<sup>2</sup>*

Historically balance or homeostasis of the ANS is achieved through reciprocal stimulation and inhibition of the sympathetic and parasympathetic via neurochemicals and the hormonal organs. A simple balance board has been used in the Syntonic literature to represent when one system is activated the other is depressed in action. The constant interplay of electrical and biochemical charge and discharge serves to maintain homeostatic balance in the face of constant internal and environmental stimuli. But we know that the system is not that simple and that the autonomics can act unilaterally, in opposition, in isolated fashion, or globally to create an energy balance to meet the cellular or localized needs. The Polyvagal Theory presents a very convincing model how the Vagus Nerve can unilaterally initiate action to regulate heart rate, respiratory function, emotional reactivity and expression, social engagement and attachment, vocalization and listening, without direct opposition to an active sympathetic system. The Vagus can dampen sympathetic responses to avoid negative emotions like fear in the interest of social interaction.<sup>3</sup>

A unilateral action has been found when micro-current of a specific frequency is applied to the body only one branch is activated and later the other responds slowly in response. In the research of Carolyn McMakin, she found that micro-current 40uA (micro-amps) at 562 Hz can inhibit the sympathetic while 80uA at 562 Hz will stimulate sympathetic action. Conversely at 709 HZ the 40uA will inhibit the parasympathetic and stimulate it with 80uA.<sup>4</sup> This implies each branch of the ANS has a specific frequency that only activates one part of the ANS alone. Also the implication is that the micro-current ef-

fect can relate to the electromagnetic charge present in the nervous system. Either the charge needs to be built up such as when red light is given, or discharged as when blue light used. This research certainly can have implications for Syntonics where the same color may stimulate or relax a branch of the ANS system. The complexity of the autonomies is still being discovered. Another level of complexity can be seen in the somatic systems.

In body psychotherapy, sympathetic activity is associated with feelings like fear, excitement, anger, desire. There is a buildup of energy which calls for expression or action. If the parasympathetic's opposes this expression, one may become depressed, or maybe feel peaceful as tension is decreased. One way the body protects itself from the tension buildup or internal conflict is to develop muscle tension. Muscle tension can be a buffer to stress, reduce anxiety, or cause embedded loss of auto regulation over time. Too much tension or stress can reduce spontaneous processes like breathing, venous circulation, and repress emotions which lead to more anxiety, anger, and fear. Too much parasympathetic activation results in depression and lack of muscle tone.<sup>5</sup> The eye muscles are a prime area of these types of muscular tension.

An example of this might be when someone has the impulse to speak in public and must gather up the energy to say something controversial. If the speaker is then interrupted the sympathetic stimulus is suppressed. Then the anxiety is left in their nervous system. The inhibition means the sympathetic arousal was not discharged or integrated, and can be split off by the parasympathetic response. The internal conflict can put the autonomic balance into conflict by blocking reciprocal action within the system. If the parasympathetic masks the sympathetic, muscle tension results that creates a chronic dysfunction. Autonomic splitting from incomplete cycles may compromise physiological patterns and remain in the body as muscle

tension, impaired breathing, hormonal and immune dysfunction. Autonomic imbalance or dominance is also part of our inherited biotypes such as Pyknic and Asthenic body types.<sup>6</sup> The biotypes represent an inherited dominance of sympathetic or parasympathetic branch nervous system. The biotypes predispose individuals to physical and emotional imbalances and behaviors. Chronic autonomic imbalance will predispose us to physiological and psychological dysfunction and eventually to pathology.

*This splitting of the autonomic system is an attempt to preserve the dynamic integrity of the self at the expense of true homeostatic balance. These splits are an obstacle to cure and may be why some of our patients regress over time.*

There are typically four types of autonomic dysfunction or dyscontrol. The first is the splitting or isolating parts of the ANS. The second could be called antagonism. This is a state where the sympathetic and parasympathetic battle each other for control. The individual pushes themselves to maintain control of their stress and emotions until they may end up with a serious breakdown such as a heart attack. A third imbalance is instability. Here the individual fails to self regulate with wild swings of emotion and body symptoms. One day there is severe pain, the next, none at all. This is a chronic imbalance of lack of homeostasis. Symptoms move around, change, and making a diagnosis can be very difficult.<sup>7</sup>

The fourth kind of imbalance is due to trauma and is seen with many brain injuries. Here both branches of the ANS are hyper activated or depressed. The ANS is highly unstable also and there can be wide swings in body emotional imbalance such as in the bipolar individual. This includes loss of auto-regulation is frequently in the Somatic or Muscular System. To understand why this happens we need to recognize that self-regulation in the widest sense (including its autonomic/emotional aspects) is intrinsically bound up with complex neural and chemical motor-sensory feed forward and feedback loops. When we use our muscles, for example, there's not just an instruction from the brain, but feedback from proprioceptors in the muscles and joints which monitor changes in tension, the speed of change, changes of pressure in the issue, the position of joints in relation to each other etc. Although largely outside awareness, the proprioceptors provide a sense, dynamic 3-D map of the body in space and in action. Similarly there are sensory interoceptors within the organs, creating complex chemical connections between all parts of the body which relay a constantly updated picture of what's happening in the organs or body.<sup>8</sup>

From the work of Alan Shore in the neuro-biology of emotion, we can see that The ANS and it's neuro-hormones wire chemical events that mediate behavior. The frontal orbital cortex, our brain's command center is coupled with the ANS with dual limbic pathways, to regulate immune function, peripheral vision, brain electrical coherence, implicit and explicit memory. This system dominates the hypothalamic-pituitary-adrenal axis. Trauma to the frontal cortex can cause a "shattered self", with bioelectrical and chemical damage that results with imprinted trauma. The neuro-connections can be decimated. The system loses the ability to respond to stimuli without excessive reactions in

the nervous system. The motor-sensory split will also be reflected in a sensory dysfunction – often marked by numbness or pain; and motor dysfunction – typically manifesting in rigidity/flaccidity of the muscle, or a compulsive motor discharge (hyperactivity). An individual's body will be characterized by its own particular variations in muscle tone, body awareness, differentiation of muscle groups, tissue textures etc. The more 'split' the mental functioning, the more splits are observable in the motor system. This can create a freeze response or over reaction to mild stress.<sup>9</sup> The ANS must be stabilized for any therapy to be successful. That is why Syntonic therapy can be so vital to neuro-optometric rehabilitation. In addition, the bringing together of sensory awareness and motility can increase healthy integration and differentiation of functions, which is an essential part of vision therapy.

One of the most exciting models of the ANS can be found in the Virtual Scanning technology developed by the Russian scientist Dr. IG Grakov. This technology both diagnoses and treats based on visual perception and the reactions within the body to color. It is the effects of light on the autonomic and biological systems that can now be measured with this technology. The precise reactions of the brain to light has allowed for a mathematical model for the autonomic nervous system and physiological systems. It had been found that almost all disorders in health affect color perception. Every disease causes a loss in color vision. The loss of color perception is directly related to defects in both the DNA and protein expressions at the molecular level. Each biochemical reaction at the molecular level releases biophotons (bioluminance), as proteins react to regulate neurological function. It is the compromise to the biophotonic communication network that caused the brain to lose the neuro-regulation of the ANS. The Virtual Scanning technology has found a way through color perception to create algorithms that measure the gene expression and environmental effects on proteins at the molecular level. This allows for a deeper understanding of the nature, structure, and function of neuro-regulatory mechanisms of how light affects the ANS. From this mathematical model a measurement of function

is created for various physiological systems such as: blood glucose, blood pressure, sleep, temperature, acidity, digestion, osmotic pressure, posture, and numerous emotional markers. The data points for the mathematical model derive from the color perception which arise from the release of biophotons as proteins react.

The scans then create pulsed colors that are prescribed into the eyes to restore normal physiology. Studies exist demonstrating the efficacy in treating over 100 disorders such as: depression, migraine, psoriasis, diabetes, wound healing, ADD, dyslexia, PMS, high blood pressure, and endocrine imbalances. The methodology incorporates data analysis regarding the genotype (heredity) and phenotype (environment) factors. Memory is also quantified and incorporated in the testing procedures. Scanning recognizes the feed forward, top down neurology and the feedback loops, or bottom up nature of how the neurological regulation of physiology occurs. The implication is that our visual color perception reveals our inner physiology and imbalances. Conversely we can view specific colors at different frequencies and restore health and balance through actions in the autonomic nervous system.<sup>10</sup> What we see affects our physiology, and our physiology affects how we see. It is the pupil, which is the gateway for light into the brain, that reacts to white and colored light in a way that informs whether the color is absorbed or not.

The autonomic nervous system can be measured in real time with heart rate variability showing the input of the sympathetic and parasympathetic system effect on heart rate frequencies. Syntonic phototherapy can change these





frequencies to facilitate heart rate coherence.<sup>11</sup> This has been the most common method to see ANS function as it occurs. It is now possible to measure the ANS with detailed pupil measurements in real time with the Rapid Assessment Pupil DX from Konan Medical. Stimuli consisting of white, red, green, yellow, and blue light can be presented to each eye in various sizes and locations to the retina while measuring the effects of each stimulus on pupil response. The stimuli are presented like a swinging pen light between each eye. The logarithmic measurement records the pupil response for amplitude and latency showing the eye with the biggest afferent defect. The higher the logarithmic numbers, the more profound is the afferent defect. The amplitude records the amount of pupil constriction and the latency records the time or speed of the pupil response and recovery from a light or color stimulus. Latency will change in proportion to the pupil amplitudes. The stimuli can also be presented to superior and inferior area of the retina for white and color in different sizes. It is postulated that only the nasal retina connects directly to the hypothalamus.<sup>12</sup> This may have implications for emotional responses and to light and SAD.

The results of testing and treating with color have indicated a possible additional method for the practice of prescribing color and assessing its effects on the ANS. When the ANS is seen in more complexity than simple reciprocal balancing we can hypothesize that color prescriptions may need to be changed more frequently and in different combinations. We might prioritize the Syntonic Rx for those colors that relate to the poorest pupil response: high logarithmic scores. As those color scores decrease we might then prescribe a round of color for the next highest scores. The layering of scores may correlate to various levels of sympathetic and parasympathetic sequestering (isolation) or dysfunction. It may be necessary to clear these layers if long lasting therapeutic success is to be achieved. The colors used must maintain a frequency harmony when they are prescribed. That is why we do not typically use single colors. In Syntonic Phototherapy the reciprocity within the ANS is created by the combination of color filters that are used. It is the unique color combinations that give Syntonics the power to bring balance or harmony to the autonomics.



Above is a readout of an afferent defect to color in the pupils for each stimulus. For this example the green and yellow had the lowest response in amplitude. One interpretation can be that the color receptivity for green and yellow is reduced. One therapy application might be that the patient needs green and yellow, with mu-delta given as therapy.

Medically the pupil defects are used for:

- Uses in diagnosis of optic nerve function
- Early predictor in glaucoma
- Informs whether problem is neurological or circulatory
- Can be used for functional diagnosis and efficacy in vision and photo-therapy
- Habitual posture affects eye positions and light exposure, is head up, eyes down
- Using Pupil analysis in postural restoration and in prescribing lenses, tints and yoke prisms
- Stimulate different portions of retina to evaluate focal and ambient color stimulation

How might we interpret these findings? In Syntonic Phototherapy we often view an abnormal response to a color as a deficit. An example of this may be when a color stimuli is not seen normally during color visual fields. For example, if the red and green fields are reduced we suspect a toxemia either from infection or toxic exposure. The treatment is usually with yellow-green (mu-delta). If a blue field is constricted we assume a stress disorder, and prescribe indigo (upsilon-omega) or blue green (mu-epsilon). It might be interpreted that the patient needs the frequencies that produce the abnormal pupil response. These are recorded as afferent defects in the logarithmic display.

As one illustration, a patient tested as follows: A 63 year old male complaining of seasonal depression as winter began. The depression was debilitating. He was taking no medication or treatment. His pupil findings were:

- Full white field: .28 OD, red .11 OS, green .11 OD, blue .46 OS yellow 1.02 OD. His readings for his nasal quadrant was 1.39 for white light. The nasal may represent a light deficit to the hypothalamus, which is associated with SAD.
- The response showed yellow and blue producing the largest pupil defects. The patient was then treated with yellow-blue (delta-omega) and immediately felt his depression lifting. After several treatments he reported no depression and an increase in overall energy for daily life.

The pupil findings were now Full White: .02 OS, Blue: .08 OD, Yellow: .16 OD. The red and green numbers were unchanged. His nasal quadrant defect for white was reduced from 1.39 to .13 a 10 fold change. The reduction in abnormal response to blue and yellow were decreased by five fold, the response to white light reduced 10 fold, and symptoms were gone. The change in the nasal quadrant may represent more light to the hypothalamus with improved emotional well being.

In a second case the pupil readings were helpful for a TBI case where a concussion resulted in severe headaches, photophobia, enlarged blind spots, hyperphoria, high exophoria (20+ diopters) and convergence insufficiency. The patient was treated first with indigo (upsilon-omega) and as the pain was reduced blue green (mu-epsilon) was added. After several weeks the headaches were only experienced when fatigued, but spatial disorientation persisted, along with midline shifts, and convergence weakness. The exophoria was reduced now to 11-14 diopters. Also there was less photophobia. Blind spots were still enlarged but less so. At this time pupil defects were .19 OD for white light, .34 OD for red, .11 OD for green, .27 OS for blue and .20 OS for yellow. Yellow-blue (delta-omega) was prescribed and following 20 treatments the red was even higher at .52 OD, but the green was .08 OS, the blue .13 OD, and the yellow was .00. The convergence became much stronger, the blind spots were now normal, and no headaches were experienced. At this point, due to the red showing the highest defect, followed by blue, red-indigo (alpha-omega) was prescribed. After 6 weeks of alpha-omega the phoria at near was 4 exo, the convergence/divergence ranges were large, the red and blue defects were reduced and her symptoms were all resolved. Therapy was then discontinued. Initially, when the trauma was acute, the blue filters were needed. As balance proceeded the patient could then accept more red and yellow giving more energy. It is interesting that the pupil will show defects in the other eye as the defects reduce. This may relate to balancing the brain in some way. The pupil defects were very important in fully treating this patient over several months to completion.

Another approach involved moving through multiple colors in treatment to provide a full spectrum exposure to color. This example involved treating a patient who wanted to reduce her presbyopia and hyperopia. In Syntonic theory we accept the idea that the pupil and accommodative function are directly related. The ciliary nerve innervates the iris and ciliary muscle. The Alpha-Omega pupil in children is usually accompanied by subnormal accommodation. So the attempt with this patient was to

bring improved pupil function and see if accommodative strength would increase in a 59 yr old female. Her initial pupil amplitudes were: .29 OS for white, .55 OD for red, .80 OS for green, .37 OS for blue and .03 OD yellow. The first series of color used was red-indigo (alpha-omega), and green-blue (mu-epsilon). Her accommodative amp with a +100 was -.50.

After 3 weeks there was no change in accommodation and the pupil amplitudes were: .03 OD for white, the rest were all OS : .22 red, .04 green, .28 blue, .39 yellow. So red, blue are less but still high and yellow is now high. Her home Syntonic filters were changed to delta-omega (yellow -indigo) and green-blue (mu-epsilon). After several weeks doing the home filters 3 times a week a follow up was done. The pupil findings were now .06 OS for white, .09 OD for red, .02 OS for green, .04 blue, and .19 OD yellow. Accommodative amplitude was -1.00 and the patient reported increases ability to read without correction and using +1.00 as needed. In this case pupil defects decreased treating again with the colors that created more defects or that the pupil was not receptive to. It is of interest that the pupil defects also change in the other eye. Is this a change in receptivity to balance both brain hemispheres? Dr. Edward Babbitt wrote that the left hemisphere receives more blue and radiates red while the right hemisphere absorbs more red and radiates blue in process of balancing the hemispheres.<sup>13</sup> Can the pupils defects mirror this phenomenon?

If balance was achieved with selected color how about using a full spectrum of color such? The approach of treating with all colors was researched by Dr. Jacob Liberman and later by Dr. John Searfoss and was found to be very effective.<sup>13</sup> Both doctors treated patients with instruments they invented that proceeded through a full spectrum of color each therapy visit. This protocol was given to two patients. Each had their pupils response measured, and then were treated with a Spectral Illuminator with short to long wavelengths (violet to red). Each color had a one minute exposure for a total of 14 colors. The first patient recently had major shoulder surgery and was in chronic pain. Before treatment he measured in the OS: .32 for white, .74 red, .25 green, .34 blue, .38 yellow. Post 2 treatments the findings were: again all OS: .12 white, .14 red, .06 green, .12 blue, and .28 yellow. He reported cessation of pain and deep relaxation.

The second patient, who reported general fatigue and excessive stress was treated with the same short to long wavelengths. In this case the numbers of the pupil defects did not decrease but became almost identical for all colors. The white defect however was .13 OS, and be-

came .00. This was the first zero defect for white seen in almost 100 patients. This implies total balance in the ANS where sympathetic (dilatation) equaled the parasympathetic (constriction) action at that moment.

From these findings and outcomes there are more questions than conclusions. Are the colors that produce defect showing a lack of receptivity? Are they the colors needed? Or could it be they are colors that are not needed and are in excess? How is pupil latency related to amplitudes? Why do defects move from one eye to the other? Should complimentary colors be prescribed in the process with such as violet-indigo for a red defect or blue-green for yellow defect? Does the physiology change as discussed with the Virtual Scanning Technology?

It appears that the best balance outcomes result for using a sequence of colors in treatment. I see this in trauma cases where the patient is very fatigued but also in chronic pain. I will palliate first with blue-indigo, blue-green for the first 20 treatments. When the pain is gone the chronic fatigue is addressed with red-indigo, yellow-indigo, and yellow-green to increase energy. It is not until all color ranges were used that the patient's analytical and fields are stable and that they are totally symptom free.

The autonomic system is very complex with various levels of response and adaptation. The ANS has networks of neurological pathways and the networks have larger global networks. The regulation of all these systems is indeed very complex. The ANS responds to both acute and chronic stimulation. The stressors are from both internal and environmental stimuli. Seeing different levels within this neuro-regulation may be accessible through the pupil responses and their relationship to light. The pupil examination can be used for diagnosis and monitoring therapy. The RAPDx with its ability to measure the pupil and the ANS in such detail gives us another major tool in evolving the art and science of optometric phototherapy.

#### References:

- <sup>1</sup> Wikipedia, The Autonomic Nervous System, page 1, February, 2015.
- <sup>2</sup> Wikipedia, The Autonomic Nervous System, page 1, February, 2015.
- <sup>3</sup> Porges, Stephen, "The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Com-

munication, and Self-regulation.” Norton Series on Interpersonal Neurology, April, 2011.

<sup>4</sup> McMakin, Carolyn, "Advanced Frequency Microcurrent" , Advanced Seminar, Las Vegas, Nevada, March , 2014.

<sup>5</sup> Carroll, Roz, "The Autonomic Nervous System: Barometer of Emotional Intensity and Internal Conflict " The New Anatomy: Exploring the Mind in the Body' run at Chiron February-March 2001.

<sup>6</sup> Spitler, Riley, *The Syntonic Principle. It's Relation to Health and Ocular Problems*, The Science Press Printing company, Lancaster Pennsylvania, 1941, pages 86-101.

<sup>7</sup> Carrol, Roz, "Thinking Through the Body" Chiron, 2001.

<sup>8</sup> Carrol, Roz, "Thinking Through the Body" Chiron, 2001.

<sup>9</sup> Schore, Allan, "Affect Regulation and the Origin of the Self, The Neurobiology of Emotional Development", Lawrence Erlbaum Associates, Hillsdale New Jersey, 1994.

<sup>10</sup> Ewing, Graham, "The Framework of a Mathematical Model of the Autonomic Nervous System and Physiological Systems: Using the Neuroregulation of Blood Glucose as an Example", Journal of Computer Science and Systems Biology, ISSN:0974-7230, January 21, 2015.

<sup>11</sup> Wallace, Larry, "Heart Rate Variability and Syntonics", Journal of Optometric Phototherapy, March 2003, pages 41-43.

<sup>12</sup> Zelinsky, Deborah: discusses how the peripheral retina turns on and off depending on the stability of the retino-hypothalamic and retino-collicular tracts. 83<sup>rd</sup> International Conference on Light and Vision, Santa Fe, New Mexico, October 2015.

<sup>13</sup> Babbitt, Edward, *The Principles of Light and Color*, Sun Publishing Company, Santa Fe, New Mexico, 1878 page 529.

<sup>14</sup> Liberman, Jacob, Syntonics vs Color Receptivity Training, 62<sup>nd</sup> Annual Conference on Light and Vision, The Catskills, May 1994 and Searfoss, John, "Theories of Therapeutic Light, Journal of Optometric Phototherapy, January, 1995, pages 5-10.



### About the Author:

Larry B. Wallace, O.D., Ph. D., is a Doctor of Optometry and has a Ph.D. in Ocular Phototherapy. He has practiced for over 35 years in Ithaca, N.Y .

Dr. Wallace has served as President of the International Light Association and President and education director for the College of Syntonic Optometry, an organization dedicated to education and research in the field of light and color therapy. He has invented and patented the first micro-current device to treat eye disease. He has published numerous articles and research on phototherapy.

Dr. Wallace has lectured and taught workshops around the world in the field of phototherapy and rehabilitative optometry. He is also a certified low vision specialist in New York, and offers alternative

care for eye disease. He has worked extensively in the field of optometric neuro-rehabilitation, postural restoration, and treatment of head trauma and brain injury.

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# Iridology, an Overview for Syntonists

Dr. Peter Guhl, O.D., FAAO, FVAO, CCII February 2, 2015

As syntonometric optometrists, we are not constrained to the realm of mainstream thought. As a lot, we are not shy about trying alternative and complimentary approaches in trying to help our patients. Sometimes these approaches have great merit but are not well known. Although we may experience great clinical results, there is ignorance by others who may discount what we do. Too often the pioneers in a field can be identified by the arrows in their back. There is another modality that I have familiarity with that offers an alternative approach called iridology. I first became interested in iridology in 1978 and have studied it since. It is a similar alternative field of study that resonates with me. There are parallels between the field of syntonometric phototherapy and iridology. Each fosters mavericks, astute practitioners who emphasize clinical care rather than data collection and analysis. Thus, both fields suffer from lack of a strong research foundation and ongoing studies. This hurts credibility, acknowledgement of the field's contributions, and its acceptance. In this article I will be defining iridology's branches and exploring how this science has a theoretical basis which merits investigation.

Iridology is based on the concept that the iris contains information that reflects bodily conditions and genetic predispositions. Clinically it is an assessment tool that provides an array of information that no genetic or laboratory test can provide. It doesn't label a process with a diagnosis but works at a deeper level, illustrating traits, risk factors and their dynamic interplay.

Iridology, like light therapy, has roots in concepts that are anchored in antiquity. In the 1800's a Hungarian physician, Ignaz Von Peczley was credited with founding the modern field of iridology. It continued to grow in Europe and the United States. During World War II, there was division between the German based European branch and the American branch. The European version grew and gained support in medicine and science. For example, in Russia only medical doctors could use iridology. Several institutions and numerous practitioners researched and promoted its growth.



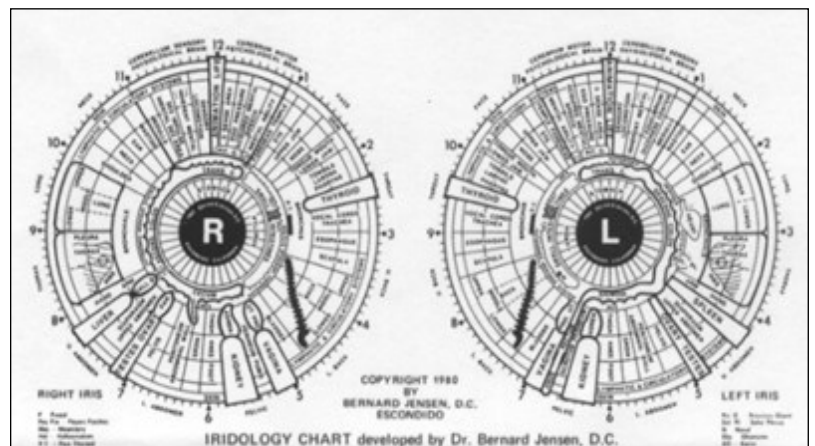
Ignaz Von Peczley.

In the United States, Dr. Bernard Jensen, a holistic chiropractor, carried the mantle of iridology. His observations and models predominated the field. He believed that the iris' structural markings were dynamic and could be used to assess not just the risk factors, but the current health status as well. Darker areas and crypts indicated degeneration or loss of vitality. White stromal fibers indicated inflammation and increased metabolic activity. He used those as barometers for issues such as: tissue dysfunction, pathways for recuperation, and guidance towards restoring better health. Dr. Jensen was a prolific writer and advocate for proper nutrition and alternative health practices.

Iridologist Harri Wolf, an American homeopathic physician, taught iridology and homeopathy in Italy in the mid 1980's. He was exposed to the European model which differed significantly from Dr. Jensen's work. He and



An Original Iridology Chart.



Iridology by Bernard Jensen.

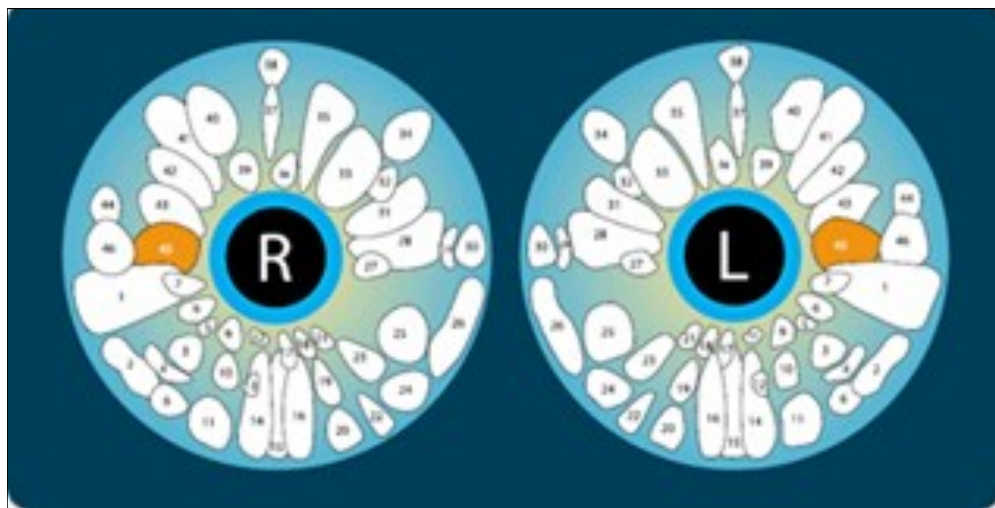


traits and personality type in a branch called Rayid. This model gives guidance in understanding the interplay of the: physical, emotional, mental and constitutional aspects of a person. First promoted by Denny Johnson, this links together iris characteristics with emotional issues to understand one's personality and the underlying factors that create that psyche.

Dr. Daniele Lorito is an Italian physician who pioneered several bodies of work that offer amazing insights. His work on the Inner Pupillary Border (IPB) links spinal issues with the pupillary ruff, an anterior extension of the central nervous system. He also defined another indicator which he has termed Time Risk. It shows when a person has had traumas or events in their lives in a temporal manner. This can be viewed as an iris recording of biorhythms that show when we were exposed to or were vulnerable to trauma. There is a derivation of this system called the Evocative Cutaneous Technique (ECT). This process creates a therapeutic release of unprocessed traumatic events that occurred in a person's life and allows for a cathartic healing.

There are pupillary reactions used in iridology that tip a hat to the Alpha-Omega pupil we use in syntonics. In iridology we do have a more robust dictionary of pupil signs based on shape.

Color deposits or pigmentary indicators in iridology fall into two broad categories, Topostable and Topolabile. The first is related to the topographic maps and reflects challenges to organ function specific to the area indicated. The latter refers to an overall pigmentary or color change that relates to systemic conditions. Tissue damage to specific organs, such as the pancreas or kidneys, can cause characteristic biochemical compounds to be released which can deposit broadly within the iris. This is like lipofuscin that is liberated and coalesces after retinal damage. For example, an orange color may come from deposition of Rufin, a lipochrome. Released carotenes can deposit as different shade of orange, while xanthophylls can contribute a yellow tint to the iris. The mesenchymal fluid/aqueous can get clouded from liberated proteins and metabolic waste products dulling the view of the iris. Pigment spots of melanin increase over time as well in the iris. These deposits are viewed as a reaction to stressors and as a risk factor for various conditions.



*Rayid Iris Chart.*

Sclerology is another allied field that looks at the conjunctiva and its vessels. These give a more contemporary view of health status and pathology risk within the body. Based on appearance and location, indications of metabolic, neoplastic, toxic, infectious and other stressors can be determined. Jack Tips and Leonard Mehlmauer are leaders in this field.

Duke –Elder has commented that there are approximately 28,000 neurons ending on the dilator fibers and chromatophores of the iris in a 1:1 ratio. No other myocytes have such direct correspondence of innervation. We have yet to find any reason for this high density. Certainly this is magnitudes of order higher than is needed for the currently known purpose of light regulation. The iris stroma contains neurons that originate in the midbrain, connect via the lateral grey column of the spine and the sympathetic chain, and may receive impressions from every nerve in the body. The anterior iris is formed from the neural crest and mesoderm. The posterior iris derives from neuroectoderm. Other than the pilar muscles that are responsible for goosebumps, it is unique and the only muscle of this embryological origin. This dilator/stromal tissue is a heavily innervated hybrid composed of neuronal and muscular fibers of unknown purpose. So in the iris you have a structure that is individualized, motile, heavily innervated and reflects one's genetics.

The iris structure is so unique that it is used for identification. Over the past couple decades iris biometrics has been employed for identification purposes. In the Middle East wars it has been used to identify people getting aid packages. The populace did not have camel driving licenses and our aid workers needed an easy way to differentiate who had already received food packages. They took digital iris photographs of the applicant and were able to compare it with the database to see if that eye already appeared for food. This iris identification system



records a pattern that is so unique that statistically it is only duplicated in 1 of 10<sup>52</sup> eyes.

I view the iris as a vast encyclopedia that provides a wealth of information. The task is to determine what information is most important and germane to the patient at that point in time. It is a system of analysis but does not label, or specifically diagnose the presence of a disease state. It will give you an idea of the inherent genetic profile. Based on an epigenetics, iridology illustrates health status as impacted by: the toxins of life, various stressors, and our reaction to them, including how we are inclined to respond and our attitude. The endpoint to this disease process can result in an allopathic diagnosis.

So far I have talked about the iris as an assessment tool. Syntonics differs in that it is a therapeutic procedure, so there is a nice dovetailing of these modalities. Yet the iris is also a light sensitive organ and can be used for treatment as well as assessment due to its photosensitive nature. Our physiological model does not consider the iris to be photosensitive. However, there is a branch of iridology that uses the iris as an exteroceptor of light. This Chromo-Iridotherapy has been studied by Dr. Lorito and his mentor Dr. Rizzi. Dr. Pierre Fragney, a Paris physician, also has developed a system that stimulates the topographic iris map with variable wavelengths of light from a 1 millimeter fiber optic bundle originating

from a tunable laser. He can both detect imbalances and correct them within the body using this light. This has been demonstrated, but the mechanism is as yet unknown.

Within the past couple decades we have discovered intrinsically photosensitive Retinal Ganglion Cells (ipRGC). There is a photopigment, melanopsin, active in the process of making these non-receptor cells photosensitive. This photopigment has also been discovered in the mammalian iris and light induced neuro signaling has been demonstrated from those irides within the past four years. It raises the question if there is not an overlay of iris stimulation when we do syntonics phototherapy?

Is iridology really a symbolic language that is spoken to us by the iris, this window to the soul? Is it more than a complex and unique structural arraignment of chaotic and random morphogenesis of minutiae, a pattern of holes or crypts that exist to allow fluid to flow in and out of this tissue as the pupil changes size? There is a fine line between astute observation and being bamboozled by inaccurate or delusional models. As alternative physicians, we are left wondering how valid new concepts are as we come across them. Dr. Caradonna and I will be presenting an iridology workshop at the CSO conference in Santa Fe, New Mexico in October. We hope you can attend.



### About the Author:

Dr. Peter Guhl is a well-respected and well-known optometric professional in the Hampton Roads region of southeast Virginia. He has been practicing in the area for over 20 years.

After attending Ohio State for undergraduate studies, he worked as a chemist and as a medical toxicologist. He earned his Doctoral of Optometry degree from the New England College of Optometry in Boston and did his internship at the Walter Reed Army Medical Center located in Washington, D.C.

Dr. Guhl is active in research and has published in the area of neurology and brain wave studies. He served as a technical consultant for Bausch & Lomb Softlens Company and as a contact lens specialist for several large ophthalmologic offices. Later, as a partner, he helped develop one of the largest optometric offices in the Northeast and served as the state president for Connecticut. He is a past/founding board member of IIPA, Chair of the Research Department and is currently a Comprehensive Certified Iridology Instructor (CCII) through them.

# Iridology—Another Perspective

Denise Hadden, Registered Optometrist, B.Sc. Hons, FBOA, FSMC, FOA [SA], FCSO

*‘...the eyes are the messengers of the heart which houses the mind’*

*Spiritual Axis, 1000BC*

Ancient Chinese texts talk of abundant health being visible when ‘the fire of all the organs pours through the eyes...’ and ‘...the eyes manifest the essence of the 5 yin and the 6 yang organs...’ Oriental medicine has regarded the eyes as the gateway to harmonising our spiritual, mental and emotional processes and as a result, has included Iridology as one of the vital diagnostic tools since the first recorded reference to the Five Element Theory in around 475BC. The fundamental principles of Chinese diagnosis have developed from an extremely sophisticated system of correlating outward signs with internal organs, which involves the synthesis of all signs and symptoms into a meaningful pattern of disharmony.

It is the ‘meaningful pattern of disharmony’ that caught my attention many years ago. We may become highly skilled practitioners in our specialised fields, yet it is in the blending and matching of signs and symptoms from diverse fields that the deepest and most powerful healings arise.

I experienced a total ‘healing’ of a very disharmonious pattern in both my irises about 25 yrs ago. This riveted me, and all who had examined me, to the realisation that instant healing does happen and is immediately visible in the iris.

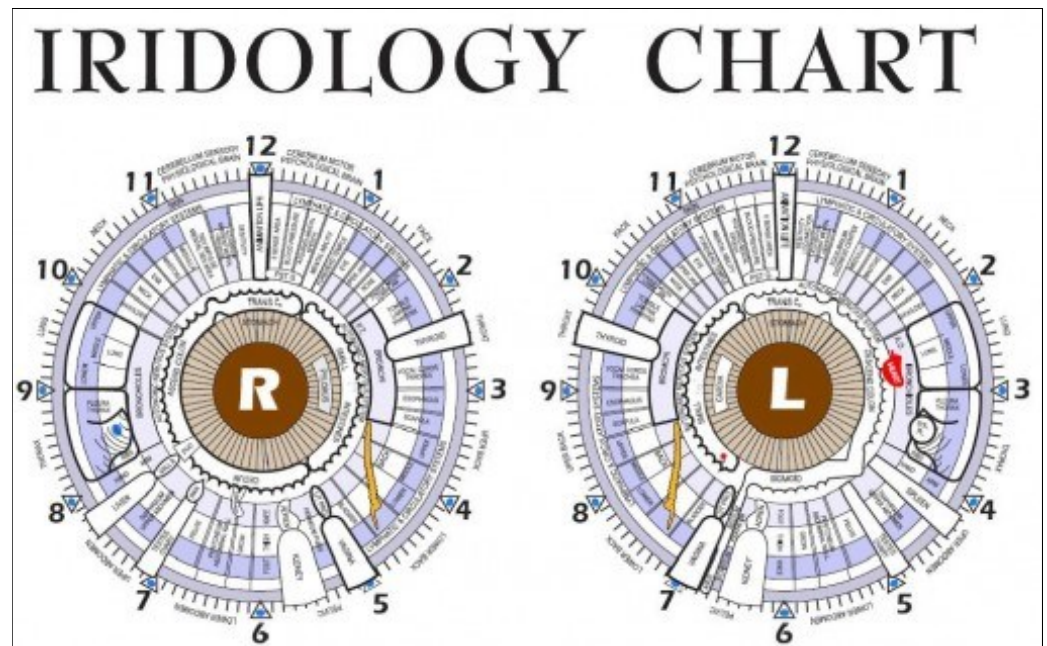
My different perspective on iridology arose when I had only recently begun charting fields and using syntonics. I had just mapped an unusual shape of field and as I looked away to think about the reason for this – my eyes fell upon an iridology chart, which happened to be lying on my desk. I discovered then

that the matching line indicated the underlying emotional reason for this patient’s disease. Connecting this information and discussing it with the patient brought her to a profound level of understanding as to the root of her illness. It is in the deeper emotional understanding of our dis-ease, that we are healed.

This ‘accidental’ discovery opened the door to a completely new way of assessing colour visual fields and a unique method of diagnosing using an iridology chart. It is now 15 yrs since I began using an iridology chart with colour fields, and the method has stood the test of time, proving itself as a consistent and reliable method of analysis.

Oriental medicine long ago discovered the body maps, which exist on the hands, face, scalp and feet. A colour visual field is a visible, externalised, functional map of the brain and the autonomic nervous system. It may also be assessed as a measure of the electromagnetic field that surrounds us all. Using an iridology chart to cover the visual field was merely an extrapolation of the creative thinking of those ancient Oriental doctors.

Placing an iridology chart over the drawing of a colour visual field was for me, I imagined, in the realms of how Sue Barry felt when she first discovered stereopsis! The image and pattern suddenly popped out and had meaning.



The indicators for diet and stress and physical trauma were all there. And what was even more exciting was that pointing out these areas of dysfunction to the patient gave such an accurate reading of their hidden challenges, that without any treatment – they understood. They saw how they could navigate through their physical and emotional difficulties. Hope is ignited when we feel empowered in moving through crisis, and the pathway to better health suddenly becomes visible.

Analysing colour visual fields with an iridology chart becomes more and more fascinating, as the information that we can obtain from them continues to unfold. The process is an empowering one for both patient and practitioner. It gives you a clear map that will guide you to the correct treatment - no matter what healing or medical modality you may use. It shows you when the patient has had too much, is resisting the issue, is blocked and unable to assimilate the treatment or is progressing well on your choice of program or treatment.

Iridologist, Sharida Faran stated that ‘Iridology enhances our ability to visualize and understand our inner world. As well as revealing a deep knowledge of physical conditions, the iris teaches us about mental attitudes, masculine/ feminine balances, attitudes towards the mother and father, relationships of the mind and body, personality and heredity.’

Combining such powerful diagnostic tools as iridology and colour visual fields, with the wealth of both clinical and scientific knowledge behind them is exciting to say the least. Adding light and syntonics as the treatment modality brings healing the trauma of a dysfunctional visual system to a whole new level.

### References:

- Hadden D (2010) *New Light on Fields*. Cape Town: RSA Litho.  
 Hadden D (2013) *Coaching the Invisible Fields* Cape Town: RSA Litho.  
 Sharan F (1992) *Iridology*. London: Thorsens.  
 Ancient Classics (1981) *Spiritual Axis (Ling Shu Jing)*. Beijing: People’s Health Publishing House, Beijing.

### About the Author:

Denise Hadden is an optometrist, light therapist, visual coach and author of 'New Light on Fields' and 'Coaching the Invisible Fields'. She obtained her degree in Manchester, UK and has continued her studies throughout her career in behavioral and syntonics optometry, traditional Chinese medicine and coaching. This culminated in the development of a unique method of analyzing human potential by combining information from functional visual fields, iridology and coaching. Denise received the H.R. Spitler award in 2014 for her discoveries into the application of her research on Syntonics Phototherapy. She now presents workshops on her developing work on light and visual awareness.



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# Historical Perspective

## LENTICULAR OPACITIES ASSOCIATED WITH DENTAL ORAL TRAUMA AND ORTHODONTIA IN THE ADOLESCENT – A PRELIMINARY REPORT

By Donald J. Mayer, Ph.D., F.C.S.O.

President of the College of Syntonic Optometry 1951

(From *Syntonogram* Vol. 14, No. 5 Sept-Oct. 1951.)

The Syntonist is well aware of several reasons for the continuous increase in the need of Orthodontia in the adolescent. Dr. Darrel Boyd Harmon explains one reason as faulty posture in education. The dental oral surgeons agree that with the great increase in rapidity of the prevailing mode of transportation – there is an increase in hazard of trauma of the jaws.

In January of 1950, while doing a progress observation examination for a girl patient, the daughter of a most competent dentist, I found a minute lenticular spot in the left eye and two minute spots in the right eye. The patient having been in my care for two years and having had vision therapy (Syntonic-Orthoptics, a slight pseudo myopic condition being corrected). I was well aware of no general health condition causing these minute opacity spots.

I did have on my case record the report of an accident in April of 1949 in which the two upper frontal incisors were severely bumped (the edge of one being broken). Several observations were made between date of accident and month of September but no opacity spots were revealed.

Were the minute opacities present in the first mentioned case due to shock or trauma? All other possible causes were ruled out. Again, in the second group of three cases, were the minute lenticular opacities due to a change in the circulation of the media because of nerve pressure or altered balance of the associated nervous function by orthodontia?

Spurred on by Dr. Hagenah's splendid paper, "Phorias in Oral Infection and Impactions" in which he mentioned the pressure sometimes exerted in orthodontia as a cause of hyperphoria. I started a clinical investigation of these cases, and like cases. This is only a preliminary report of the investigation under way.

## CASE ANALYSIS

The dental surgeon preparing patient for extraction in upper frontal plate (upper control incisors, laterals and cuspids) records, that after injection the pupils dilate and occasionally there is loss of motor control of the eyes (actual deviation of eyes). This is a nerve block through the sphenopalatine ganglion and there is an anastomosis of the anterior sphenopalatine nerve with the ciliary ganglion, from the nasociliary branch.

Thus, it would seem that shock from trauma of upper frontal dental plate, or central area of upper jaw could be a causative factor in changes of the crystalline lens, and also, orthodontic manipulation within this area might be a causative factor of lens changes resulting in minute opacities.

Dr. Spitler gives a logical explanation of the mechanics involved as follows:

1. The teeth are innervated the fifth cranial nerve. It is a mixed nerve, hence sensory impulses initiated by orthodontic manipulation travel to the semilunar (Gasserian) ganglion.
2. The first division (ophthalmic) of the fifth connects to the ciliary ganglion from its nasociliary branch. Hence, via 1 and 2 we have reflex connection to the interior of the eye.
3. Dilation of the pupil is a cervical sympathetic phenomena via the ciliary ganglion. Dilation tends to increase intraocular tension, which incidentally compresses the anterior capsule, thus increasing its permeability by thinning, and might result in either tropic or degenerative effects in the capsule or the anterior lens surface.

But there is another thing to keep in mind, i.e., the galvano-electric stimulation to the fifth nerve due to the use of dissimilar metal in the mouth. All cases should be checked on this score, too."

Dr. Spitler also states, "as to the hyperphoria (associated with orthodontic manipulation), the nerve root of the ciliary ganglion connects with the third nerve to the inferior oblique muscle. So, you see it all ties up to sensory impulses originating in the teeth.

Patient L.D., girl, age 10, September 22, 1948.

Patient a pseudo myope, vision slightly less than 90%, 20/30 O.U., O.D. 20/40, O.S. 20/30. # 4 vision showed minus projection #5 and #6 showed plus.

Background of excellent health, no visual difficulty, but father (a competent dentist) suggests visual analysis.

A near work or close application prescription was given as a treatment appliance. Syntonic-Orthoptics were instituted. Patient responded well and March 3, 1949 observation showed, vision O.U. 20/15, either eye 20/20.

In April of 1949 patient in slight accident – bumped upper frontal incisors severely, both fractured (root fracture etc.) one tooth practically knocked out, other tooth revealed root exposure. Teeth were immediately wired in place and in thirty-six hours a retainer was made and placed. In a week, teeth normally tightened. In September 1949 all teeth were vital.

June 6, 1949; September 19, 1949 and December 6, 1949 visual observations were made, visual performance was on a high level, media clear, acuity O.U. 20/15 plus, O.D. 20/20 plus, O.S. 20/20 plus.

On January 16, 1950 – visual observation revealed neurological graphing same, acuity same but two minute lenticular spots in upper nasal quadrant of R lens, and one minute spot in upper nasal quadrant of L lens.

On January 25, 1951, observation shows the spots about the same, slightly smaller. Two series of fifteen syntonizations had been given vitamin-mineral program followed and health program observed.

#####

In late 1949 orthodontia was instituted in the case of our daughter Kathleen. The orthodontia manipulation was rapid undoubtedly due to a full vitamin mineral program over the years. Kathleen's visual problem was simple requiring a lens correction for close application. Yet, by mid-year of 1950 (July 24, 1950) a minute opacity was revealed in the lens of the right eye.

Then I started an investigation in earnest. A patient R.B., boy, 12 years of age had been in our care for two years on a visual development program. His case progressed satisfactorily until early in the year he started orthodontia. We found by examination of the media of the lens that a minute opacity was present in the upper quadrant on the lens media. R.B. health is good (and health background is good) and he is on a well rounded vitamin mineral program.

#####

In early January of this year, (1951) we started a visual development program for an adolescent girl patient, J.A.L., age 16, who has been having orthodontic work for a period of several years. She has a background of fine

health, but the minute lenticular opacities are present, two of them on the horizontal line, nasalward, of the right lens; and one in the upper nasal quadrant of the left lens.

Dr. Spitler gives us this added detail explanation of the sympathetic nervous system "tie in" between the upper jaw and the ciliary body, iris and cornea.

"First: A direct path from the ganglia in the medulla through the semilunar ganglia, ophthalmic nasociliary branch division sends a branch straight through the ciliary ganglion which ends in the ciliary body, iris and cornea.

Second: The sphenopalatine ganglion receives nerves from nasal fosa and bones of the upper jaw via the Vidian nerve (pterygoid canal nerve) sends Sympathetic fibers via carotid plexus to the ciliary ganglion, thence to the ciliary body."

Also it would seem that we have a similar sensory nerve "tie in" between the eye and the lower jaw, from the lower mandibular division through the Gasserian ganglion on through the ophthalmic division to the ciliary ganglion. Also, through the nasociliary nerve as it branches from the ophthalmic division, on to the ciliary ganglion.

#### SUMMARY – CONCLUSION

1. Orthodontia is on the increase, it is an ever widening field of corrective dental procedure.
2. Transportation is continuously speeding up, causing greater hazard in dental trauma, broken jaws, etc.
3. In either of the above conditions (orthodontia or dental trauma) there may be found in the patient minute lenticular opacities, due to manipulation pressure or shock, or both.
4. There must be closer cooperation between the dental oral surgeon, the orthodontist, the dentist, and the specialist in the care of vision.
5. We have at our command (Syntonic procedure) the only complete visual care that can possible correct these lenticular conditions.

*Donald J. Mayer, Ph.D., F.C.S.O.  
6123 Magnolia Avenue  
Riverside, California  
May 11, 1951*

*Prepared for the College of Syntonic Optometry and the  
Visual Geriatric Society.*

# Lighting Up Lives, 2015

**Denise Hadden, Registered Optometrist, B.Sc. Hons, FBOA, FSMC, FOA [SA], FCSO**

This is a short story. Short because the speed at which this 75yr old gentleman shifted was quite profound.

He arrived following an urge to search in his library for a book on light...and that is another story, which will soon be told. His desire was to find a way to heal the rift in his fractured relationships and to bring back meaning and purpose to a life lived in the service of others.

His field was small- below 15 degrees on blue, below 10 degrees on red and below 5 degrees on green. His blind spots were displaced vertically and horizontally. Kirlian analysis revealed his innate nature of giving away power to others in deficiency in the 2nd and 3rd chakras. I heard the history of his physical and emotional journey, his achievements as a gifted and accomplished psychotherapist, and I held the space for him as I pointed to a near death type experience that revealed itself in his field. He listened in astonishment that this was visible, and then recounted his near death event only 9 months prior.

I chose to give him a 10min Monocrom Dome experience, which allows one to self-direct to any colour that you feel drawn to. I gave him a home machine and a program for two weeks that would allow him to 'see the truth'.

I asked him to remain in contact with me as often as he wished.

The following day he emailed and expressed his deep inner knowing that the light was a 'potent method to work with' and that he now recognised in the core of his being how much responsibility for others he had taken upon himself.

After the first two sessions [upsilon omega 10mins and omega 10mins for two days] of light he emailed again. He had recognised his need to find another way of relating and connecting to his family, but was now feeling anxious that these new understandings and 'revelations' would not be permanent.

After 4 sessions of light [mu upsilon 20 mins only each day] he reported

'I experienced such a huge influx of energy...and was astonished by the relative ease with which I did a three hour hike in the mountains – which has been totally unprecedented for me in recent years.'

He had two days break after 5 sessions of light and continued on for another week.

His second assessment showed a hugely increased green field as well as increases in the red and blue fields. The blue fields showed breaks, indicating that he needs to protect his newly recovered energy and awareness.

His blind spots were more balanced. He reported feeling much less back and neck strain, clearer vision, better sleep and a continued increase in energy levels.

I advised a break from light in order for him to assimilate the 'deep subterranean shift' that he had reported.

He is different now, conscious in a highly compassionate way of the balance that he needs to maintain within his personal relationships, and the cost to him physically and emotionally if he does not honour himself.

I felt humbled in his presence, knowing that it is not easy to allow one's field to open with such ease. Knowing that this kind of change requires the courage to look deeply into one's inner shadows and allow the truth to become visible.

Isn't light amazing!

## About the Author:

Denise Hadden is an optometrist, light therapist, visual coach and author of 'New Light on Fields' and 'Coaching the Invisible Fields'. She obtained her degree in Manchester, UK and has continued her studies throughout her career in behavioral and syntonics optometry, traditional Chinese medicine and coaching. This culminated in the development of a unique method of analyzing human potential by combining information from functional visual fields, iridology and coaching. Denise received the H.R. Spittler award in 2014 for her discoveries into the application of her research on Syntonics Phototherapy. She now presents workshops on her developing work on light and visual awareness.



For information on workshops or presentations, please email [light@denisehadden.com](mailto:light@denisehadden.com)

# Making a Difference World Wide

## Syntonics in My Practice

*By Hans De Bruin, Optometriste  
Hoofddorp, The Netherlands*

In the shadow of Amsterdam lies the town of Hoofddorp where I have my office and have practiced syntonics for 5 years.

For 19 years I have done the Zeiss rail fixation disparity on the Pola test and corrected the patient with Prism glasses. By means of positive and negative polarization Prism, you determine the minimum value (on quarter accurately) and bring the patient more in his comfort zone.

There I got the request almost daily to correct with contact lenses. I have long searched for a solution.

I already knew of Stefan Collier and Ferdinand Overdijk's Visual training and so I have mastered the syntonics, because for fixation disparity lots suppression prevents you from understanding that recovery of the perceptual field will have a positive effect on the Prism value.

I have treated me first, as I wore glasses with Prism temporal and 1 Basic above.

After 2 weeks was my double vision (with goggles without Prism) as good as over and after 6 weeks just gone.

Now 5 years later I still experience the great benefits of the treatment.

As of July 2014 I had around 800 clients in more than 90%, the color is extremely pleased with the end result.

The treatments are also not only remained for fixation disparity but have also expanded to include glaucoma damage, Parkinson, multiple sclerosis, etc.

The determination of the filters is always the 21 points test.

The time I love is 5 minutes per color, there are up to 4 eye movement exercises done during this period.

The Palming is for me a very important part of treatment.

The afterimage told me a lot about how far you are with the restoration of the perceptual field.

The form and colour is at the two weekly monitoring stood still. You're looking for the complementary color

and the round shape. If you are after the Mu Upsilon delta and/or as afterimage purple hears you know you are on the right track, often are the asthenopia complaints disappeared like snow in the Sun.

Syntonics I experience is something so special and so do my customers as well.

I will never be without it. It is an enrichment of my life.

---

**Betsy Hancock, O.D., FCSO  
Bloomsburg, Pennsylvania**

Last summer Rose Marie Wanchupela came to talk to me in my office and as a result my son and I traveled to Thailand early last December to introduce Syntonics to the children and staff in her school in Thailand. On Sunday I gave two talks to the Rose Marie Academy in Bangkok, Thailand. The first was to medical and academic professionals and the second to parents of children with Low Vision problems.

During the next several days I screened approximately seventy five students of the one hundred and five students. The children were chosen based on the College of Optometrists In Vision Development Questionnaire. Students were rated by three teachers and then referred for screening, all but two children failed. Next over fifty visual fields were taken and most of the fields were smaller than a dime. This English speaking school has small classes and is very supportive of children with reading problems.

After all the fields were completed and the frequencies selected, I gave two talks to the teachers explaining their students' visual field to them. I remember saying to them "how do you teach these children?" There was a lot comprehension on their faces. We discussed recording the information perhaps leading to a research paper. I plan to return to Thailand in the near future. I will be teaching more on Vision Therapy.

For those of you who wish to travel to Thailand the plane flight is at least twenty hours or more. Food and accommodations are extremely reasonable especially if you are feeding a rapidly growing teenager. The people are delightful and warm, the traffic is terrible but no one beeps their horn. They have orchids everywhere and the food is fresh and available from any nationality.



*Ron & Irene Wahlmeier receiving the 2014 Charles C Butts Award from Ray Gottlieb in St. Pete Beach, Florida on May 3, 2014.*

## **Charles C Butts Award**

For Distinguished Service, Gratefully Presented To:

***Irene Wahlmeier, M.S., COVT  
&  
Ron Wahlmeier, MBA, ASCP***

In Recognition for your Many Years of  
Caring Service & Creative Energy Devoted  
to  
Organize and Administer for the Success  
of  
the College of Syntonic Optometry

## **H. Riley Spitler Award**

Proudly Presented to:

***Denise Hadden, BSc HONS, FCSO***

For your Original Discoveries & Research in  
Bringing a new Perspective by Merging  
Psychology and Subtle Energy with  
Functional Visual Fields for the  
Application of Syntonic Phototherapy

St. Pete Beach, FL May 3, 2014

*Photo taken by [www.dirkvisser.com](http://www.dirkvisser.com).*



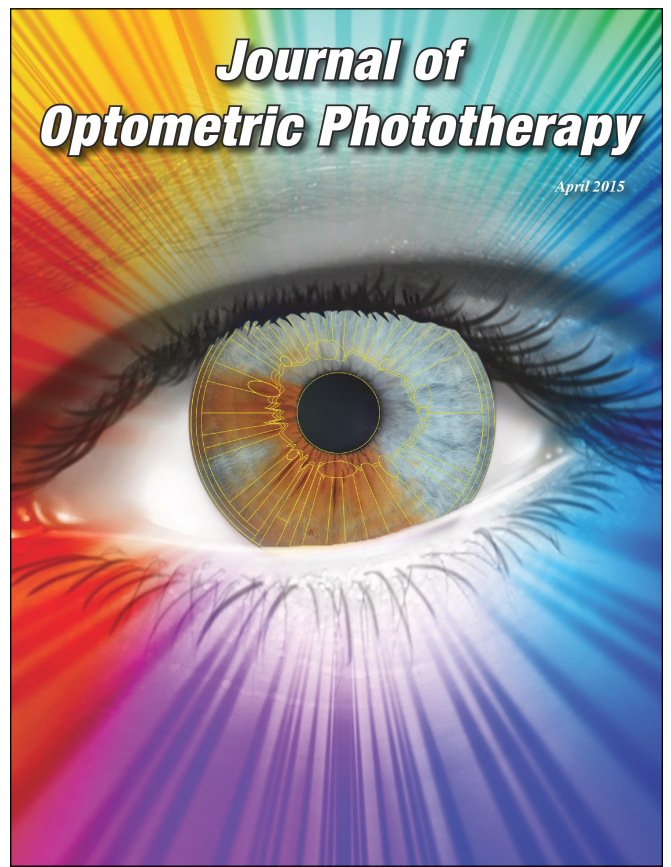


## About the Cover

This cover design was created in keeping with the syntonics effect of light frequencies shone upon the ocular structure by David Pesek, Ph.D. and graphic designer Jim Folsom of Winona Lake, Indiana.

The iris photo was taken with the Pesek Clinical Iriscope. The Chart of Holistic Iridology overlay comes from Dr. Pesek's new Iris Analysis and Reporting System software. The iris map, or chart, overlay is from Dr. Pesek's Holistic Iridology®. The first known chart in the western world was published in German in 1880 by Dr. med. Ignaz Péczeley of Budapest, Hungary. The first chart published in the English language was in the USA in 1904 by Henry Edward Lahn, M.D.

The radiance of light that emanates from the soul's consciousness via the ocular structure is also depicted. According to constitutional iridology we have a lymphatic (blue) iris with two complete sectoral heterochromias of low density melanin pigment.

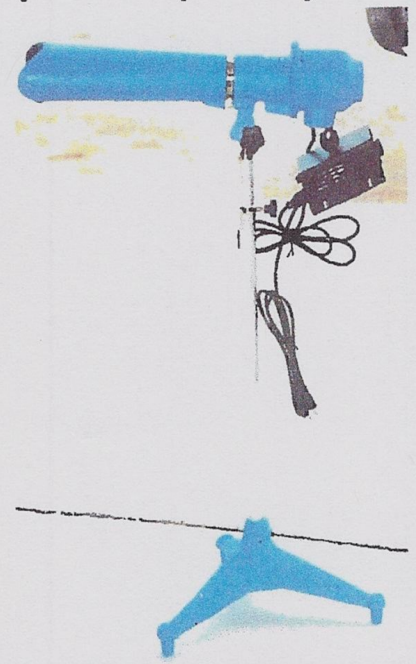
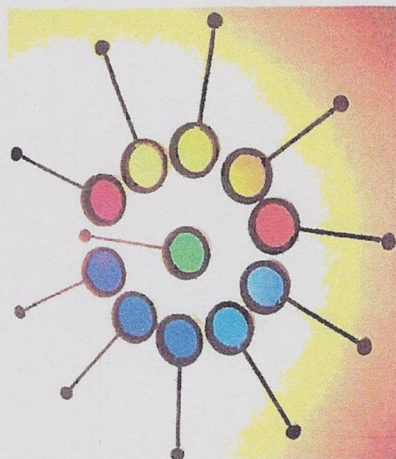
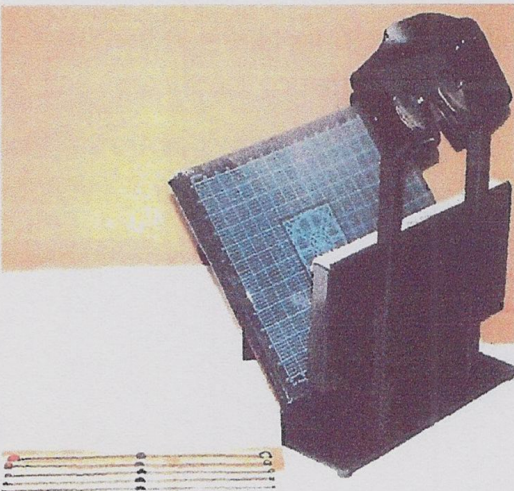


## **C&j Instruments** 2620 Pawnee Ave. North Platte, NE 69101

**C&j Instruments** has more than 20 years experience manufacturing syntonics equipment with a close working relationship to the College of Syntonics Optometry. Call or email for a free brochure and price list.

I Appreciate your business, Rex J. Cross, Owner

### **C&j Instruments**



Phone 308 534-2537

\*

Email: [candjins@kdsi.net](mailto:candjins@kdsi.net)

## In Memoriam

*It is with sadness to announce that **Ellis Edelman, OD, FCSO** passed away on January 23, 2015 just short of his 91<sup>st</sup> birthday. Dr. Edelman will be missed for his passion for syntonics and as a great innovator within syntonics often adding vectograms and fusion activities to his syntonics treatments.*

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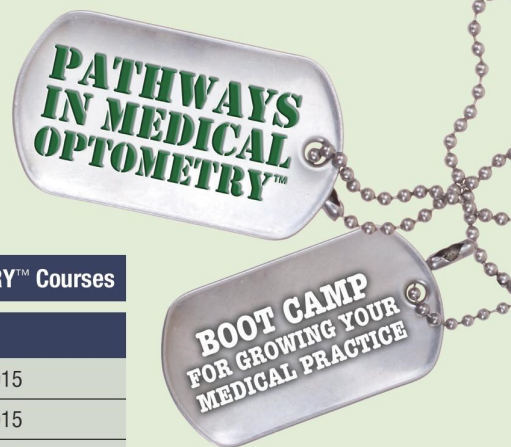
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## College of Syntonic Optometry

### 83rd International Conference on Light & Vision

October 27-31, 2015

La Fonda on the Plaza  
Santa Fe, New Mexico

Contact:

Ron Wahlmeier

Email: [syntonics@q.com](mailto:syntonics@q.com)



Optometric Syntonic Phototherapy 101 June 13-14, 2015 Oswego, IL, USA

Contact: Ron Wahlmeier [syntonics@q.com](mailto:syntonics@q.com)

Optometric Syntonic Phototherapy 101 October 27-28, 2015 Santa Fe, New Mexico, USA

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This is 2- day course that will provide you with practical education and theoretical foundation of optometric phototherapy including the history and basic concepts of Optometric Syntonic Phototherapy pupil assessment, convergence nearpoint, functional visual field assessment and case syndromes. Attendees will learn how to diagnose cases and apply treatment to remediate strabismus, accommodative/convergence problems, amblyopia, asthenopia, headache, vision related learning and attention problems, visual field deficits associated with brain injury, visual stress, and emotional trauma, and in the treatment of ocular pathology. Pre and post treatment protocols will insure clinical success. Case and patient management will be covered as well.

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April 30th-May 3rd, 2015

Tallinn, Estonia

<http://www.international-light-association.org/conf/2015>

IV Congreso

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